

Conduct Problems

Adolescent Report

2013



Report by the Advisory Group on Conduct Problems

Advisory Group on Conduct Problems

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Executive summary

This is the fourth report in a series prepared by the Advisory Group on Conduct Problems (AGCP) on the prevention, treatment and management of conduct problems in young people. For the purpose of this and all reports prepared by the AGCP, conduct problems are defined as follows:

“Childhood conduct problems include a spectrum of antisocial, aggressive, dishonest, delinquent, defiant and disruptive behaviours. These behaviours may vary from none to severe, and may have the following consequences for the child/young person and those around him/her - stress, distress and concern to adult caregivers and authority figures; threats to the physical safety of the young people involved and their peers; disruption of home, school or other environments; and involvement of the criminal justice system [1].”

The focus of this report is the identification, implementation and evaluation of programmes for adolescents aged 13–17 years. Previous reports have examined interventions and programmes for 3–7 year olds [2] and 8–12 year olds [3].

Chapter 1 provides an introduction to the report and addresses the following issues:

1) The distinction between adolescent limited and life course persistent conduct problems. It is noted that for many young people, conduct problems are limited to the period of adolescence. However in a minority of young people these problems begin in early or middle childhood and persist into adulthood. These distinctions in the developmental trajectories of conduct problems have important implications for both the assessment of these problems and the choice of intervention methods.

2) The assumptions of the report. It is noted that much of the report is based upon a Prevention Science perspective which emphasises the need for policies:

- To be based on reviews and meta-analyses of the scientific literature.
- To be evaluated using both pilot studies and randomised controlled trials to assess programme efficacy.
- To be monitored to examine their long-term effectiveness.

3) Issues for Māori. While the use of a Prevention Science model forms the basis of much of the report, the report also examines the issue of adolescent conduct problems from a Māori perspective

and describes the fundamental differences between the kaupapa Māori model and the Prevention Science model.

4) *Reconciling the Prevention Science and Mātauranga Māori perspectives*. This section introduces and discusses the He Awa Whiria (Braided Rivers) model developed by Professor Angus Hikairo Macfarlane as a means of reconciling Prevention Science and Mātauranga Māori perspectives [3].

Chapter 2 provides a summary of effective interventions for the treatment and management of adolescent conduct problems. This section is based on a systematic review of the evidence conducted by Dr John Church and reported in Appendix 1 of the report.

Interventions are classified into 4 groups depending on the evidence for their effectiveness.

- *Recommended Programmes*: These were programmes for which there was generally strong evidence of programme efficacy.
- *Promising Programmes*: These were programmes for which there was substantial evidence of programme efficacy for children under 13, with these programmes meeting all the criteria for recommended programmes. However, for these programmes, the evidence of the efficacy of the programme for adolescent population was limited and not sufficient for the AGCP to classify these programmes as recommended.
- *Programmes for which the Evidence was Inconclusive*: These were programmes or interventions for which there was evidence of programme efficacy on the basis of randomised trials or quasi-experimental designs, but for which the evidence was not conclusive for any one of a number of reasons.
- *Not Recommended*: These were interventions for which there was strong and consistent evidence to suggest that the programme was either ineffective or harmful.

Programmes were also classified into three tiers reflecting the scope and intensity of the programme:

- *Tier 1 Programmes*: Universal programmes that are targeted at all parents, teachers, schools or young people.
- *Tier 2 Programmes*: Those programmes which would normally be the first programme offered to young people identified as having significant levels of conduct problems.

- *Tier 3 Programmes:* More intensive therapeutic programmes that are provided in cases where the young person shows severe conduct problems or where treatment by a Tier 2 programme has not been successful.

Finally, programmes were classified according to the setting within which the programme was delivered:

- *Family Based Programmes:* Those which are delivered predominantly or exclusively in a family context.
- *School Based Programmes:* Those which are delivered predominantly or exclusively in a school context.
- *Residential Programmes:* Those in which the young person is removed from the normal place of residence and lives in a treatment facility aimed at addressing the young person's behavioural problems.
- *Multimodal Programmes:* Those which incorporate two or more of the programme types above.

To classify programmes that did not obviously fall into any of the above classifications, a residual "Other" category was added to the classification system.

On the basis of these criteria, four programmes were identified as *Recommended* programmes:

- Multi-systemic Therapy (Tier 3; Multimodal).
- Functional Family Therapy (Tier 2; Family Based).
- Multi-dimensional Treatment Foster Care (Tier 3; Residential).
- Teaching Family Homes (Tier 3; Multimodal).

Seven interventions were identified as *Promising*:

- Aggression Replacement Training (Tier 3; Other).
- Teen Triple P (Tier 2; Family Based).
- School Wide Positive Behaviour Support (Tiers 1–3; School Based).
- Prevent-Teach-Reinforce (Tiers 2, 3; School Based).
- Adolescent Transitions Programme (Tiers 1–3; Multimodal).
- Check and Connect (Tier 3; School Based).
- Group Contingency Management Programmes (Tiers 1, 2; School Based).

Five interventions were classified as *Inconclusive*:

- Mentoring Programmes (Tiers 2, 3; Other).
- Wilderness /Outdoor Education Programmes (Tiers 2, 3; Residential).
- Restorative Justice (Tiers 2, 3; Other).
- Alternative Education (Tiers 2, 3; School Based).
- Institutional Facilities (Tier 3; Residential).

Two interventions were classified as *Not Recommended*:

- Military Style Training/Boot Camps (Tier 3; Residential).
- Scared Straight and Related Programmes (Tier 3; Other).

The chapter also discusses the role of Clinical and Forensic services in the treatment of conduct problems including: assessment; treatment plans; direct services to the client; and the role of interagency cooperation.

Chapter 3 discusses the comorbid conditions that frequently co-occur with conduct problems in adolescents. These conditions include:

- Attention Deficit Hyperactivity Disorder (ADHD).
- Major Depression and Suicidal Behaviours.
- Education Delay and Under-Achievement.
- Risky Sexual Behaviour.
- Child Abuse.
- Poor Physical Health.

For each of these outcomes the chapter points to: the importance of recognising comorbidity; the importance of adequate assessment; and the importance of evidence based treatment and interventions.

Chapter 4 examines:

- The importance of addressing issues of conduct problems in Māori and the need to reconcile Prevention Science and te ao Māori perspectives.
- A brief review of Māori frameworks relevant to the understanding of conduct problems in adolescence.

- Māori perspectives on adolescent conduct problems.
- Comparison of the features of culturally appropriate and culturally responsive programmes.
- The key elements of kaupapa Māori programmes.
- A brief review of existing kaupapa Māori programmes for conduct problems in adolescence.

Chapter 5 considers the issues that arise in implementing and evaluating programmes and interventions aimed at the prevention, treatment and management of adolescent conduct problems.

The content of the chapter is based around two general themes:

- The need for evidence based policy and evaluation.
- The need to recognise the te ao Māori perspective.

The report then discusses a series of issues relating to the organisation of services for treating adolescent conduct problems in the New Zealand context.

It is noted that currently services for adolescents with conduct problems are provided by four agencies (Child Youth and Family; Education; Health; Police), with each agency approaching this issue from different perspectives. Within the Health and Education sectors the assessment and treatment of conduct problems is largely managed by multidisciplinary teams that can include adolescent psychologists and psychiatrists. The work of Child Youth and Family (CYF) (Care and Protection, Youth Justice) is largely based around a Social Work model, with the Family Group Conference providing the major method for engaging the family in decision making and treatment planning. The service provided by Police is centred on a criminal justice model focussed around both the prevention and the reduction of recidivism. The organisational differences lead to differences in the ways in which young people with conduct problems are viewed and treated when they come to official attention and are likely to influence the outcomes of treatments or interventions. Some of the key differences include:

- *Limitations on Access to Services:* Both the Ministry of Education and the Ministry of Health impose some restriction on the access to services for young people with conduct problems.
- *Variations in Assessment Methods:* While all agencies apply methods of assessment for young people, these methods vary widely between agencies.
- *Variations in Decision Processes:* Parallel to variations in assessment processes, there are also variations in the decision processes about methods for managing and treating conduct

problems. Within Special Education and Child and Adolescent Mental Health Services (CAMHS) these decisions are largely made by trained clinicians in consultation with families. Within CYF (Care and Protection, and Youth Justice) decisions are made by trained social workers and clinicians (psychologists and paediatricians), in consultation with families, on programme and treatments.

- *Limited Use of Evidence Based Services:* Despite the large infrastructure and investment in childhood conduct problems and juvenile delinquency, the use of the evidence based interventions reviewed in this report in New Zealand is limited.
- *Responsiveness to Māori:* While some progress has been made, there are still few intervention services where work to ensure cultural appropriateness and responsiveness has been robustly implemented. All government agencies and NGOs who are delivering behavioural services to rangatahi Māori need to prioritise use of existing frameworks such as Te Pikinga ki Runga to increase safety and effectiveness for rangatahi and whānau.
- *Limited Evaluation:* Parallel to the lack of investment in evidence based services, there has been little investment in evaluating the effectiveness of existing services.

It is suggested that to address the issues above, the following key reforms will be required:

- The development of unified and validated methods for assessing conduct problems in young people.
- The development of multi-disciplinary teams which include the expertise of clinicians, educationalists, social workers and representatives of the criminal justice system.
- Greater investment in the use of evidence based practice.
- Greater investment in evaluation of the efficacy of existing services.
- Continued investment in ensuring that systems are responsive to Māori culture and concerns.

There are some promising developments suggesting that these needs are beginning to be recognised with Government. These developments include: the Gateway Assessment Programme; Youth Offending Teams and the High and Complex Needs Units. All of these initiatives recognise the need for greater interagency collaboration in the assessment, treatment and management of adolescent conduct problems.

The chapter discusses ways of increasing the uptake of evidence based programmes. Issues considered include:

- Extending Fresh Start to include further evidence based interventions.
- Updating and extending the functions of the Family Group Conference.
- Reducing rates of school stand-downs, suspensions, exclusions and expulsions.
- Increasing service provision within the Health sector.
- Increasing the capacity of Non-Government Organisations (NGOs) to deliver evidence based programmes.
- Investing in training.
- Greater investment in the development of culturally appropriate and culturally responsive programmes for Māori.

The chapter concludes with a list of 33 recommendations.

Organisational Issues and Assessment

Recommendation 1: There is a need for greater interagency collaboration to ensure greater consistency in:

- Methods for assessing conduct problems and their comorbidities
- The use of evidence based interventions
- The evaluation of programmes and interventions
- The development of culturally appropriate and culturally responsive programmes.

Recommendation 2: The AGCP recommends that the Ministries of Health, Education and Social Development collaborate to agree upon a common terminology to refer to: a) early onset antisocial development; and b) adolescent onset conduct problems, and further collaborate to ensure that this distinction is built into the diagnostic procedures used on entry to all CAMHS, Special Education and CYF services for young people with conduct problems.

Recommendation 3: The Ministries of Health and Education should consider developing standardised methods of assessment for teachers and social workers to use in the identification of children and adolescents in need of specialist assistance for antisocial behaviour problems.

Recommendation 4: The AGCP recommends development of a memorandum of understanding regarding which evidence based treatment programmes are going to be the primary responsibility of: a) Child and Adolescent Mental Health; b) Special Education; and c) Child Youth and Family services.

Recommendation 5: Consideration should be given to strengthening the membership of Family Group Conferences to require the inclusion of trained clinicians (psychiatrists; psychologists) to provide the client family with information about the young person's clinical condition and the evidence based treatments that are currently available.

Recommendation 6: The Ministry of Education should extend the services provided by Special Education to include all young people at school.

Recommendation 7: The AGCP recommends that The Ministry of Health abolish the requirement that CAMHS only treat conduct problems if these are comorbid with some other recognised mental disorder. This is a high priority development given that CAMH services are the best equipped to treat the disorders such as substance abuse, depression, anxiety problems, and suicidal behaviours which co-occur with conduct problems.

Service Provision

Recommendation 8: The Ministries of Education, Health, and Social Development should review their current investments in services and programmes provided by NGOs to:

- Identify the number of programmes that are supported by evidence.
- Evaluate the effectiveness and cost effectiveness of publicly funded NGO programmes.
- Enter into collaborative partnerships with NGOs to encourage the use of evidence based programmes and evaluations of existing programmes.

Recommendation 9: The Ministries of Education, Health, and Social Development should consider reviewing their current programmes and policies targeted at adolescents to determine the extent to which the evidence based programmes recommended in Chapter 2 of this report can be incorporated into current practice. These programmes include:

- Multi-systemic Therapy
- Functional Family Therapy
- Multidimensional Treatment Foster Care
- Teaching Family Homes
- Aggression Replacement Training
- Teen Triple P
- School Wide Positive Behaviour Support
- Prevent-Teach-Reinforce

- Adolescent Transitions Programmes
- Check and Connect
- Group Contingency Management Programmes

These programmes cover a wide range of settings (school, home, residential) and address adolescent conduct problems from mild to severe. They appear to be suitable for use by both Government agencies and NGOs depending on the adolescent population being addressed. A number of specific proposals are made in Recommendations 11 to 16.

Recommendation 10: The AGCP strongly recommends that MSD considers the trialling and evaluation of Teaching Family Homes as an alternative to the services currently being provided by CYF residential services.

Recommendation 11: The AGCP strongly recommends that MSD develop a programme of work to pilot and evaluate the cost effectiveness of a Multidimensional Treatment Foster Care programme in New Zealand as an alternative to existing foster care services for children with antisocial behaviour problems.

Recommendation 12: The AGCP strongly recommends that the Fresh Start initiative should be extended to include well validated evidence based programmes, including:

- Multi-systemic Therapy
- Functional Family Therapy
- Multidimensional Treatment Foster Care
- Teaching Family Homes
- Teen Triple P

Recommendation 13: The AGCP recommends that Prevent-Teach-Reinforce be added to the PB4L programme of work, that this intervention programme be piloted in a representative sample of schools and that the outcomes of these pilots be carefully evaluated.

Recommendation 14: The Ministry of Education should develop evidence based policies, strategies and methods to reduce the number of young people who are excluded from school as a result of stand-downs, suspensions and expulsions because of antisocial behaviours.

Recommendation 15: The Ministries of Education and Health consider introducing, implementing and evaluating the MATCH-ADTC model as a method for Child and Adolescent Mental Health

Services to provide more consistent and evidence based treatment of adolescent conduct problems and their comorbidities.

Training Issues

Recommendation 16: The Ministries of Education, Health and Social Development should consider the training and work force requirements for implementing the programmes described in Chapter 2 of the report. The implementation of these programmes is likely to require increased numbers of adolescent psychiatrists and psychologists; social workers with mental health training; and therapists.

Recommendation 17: The AGCP recommends that Resource Teachers of Learning and Behaviour be provided with training in: a) the assessment of behaviour disorders; b) evidence based methods for treating these disorders.

Recommendation 18: The AGCP recommends that the New Zealand Teachers Council Graduating Teacher Standards be amended to require all new teachers to be trained in: a) the development and assessment of antisocial behaviours; b) evidence based classroom and individual behaviour management procedures.

Recommendation 19: The AGCP recommends that CYF develop and implement training for foster parents using evidence based programmes. Excellent models of foster parent training are provided by both the Teaching Family Homes certification programmes and the Multidimensional Treatment Foster Care certification programmes.

Recommendation 20: The AGCP recommends that the Ministries of Health, Education and Social Development promote the use of regular forums to acquaint front line staff with evidence based methods for the assessment, treatment and management of young people with conduct problems. These meetings could be modelled on the highly successful Taumata Whanonga held by the Ministry of Education in 2009.

Recommendation 21: The AGCP recommends that the Core Competence Standards of the Social Workers Registration Board be amended to provide all new social workers with training in: a) the development and assessment of antisocial behaviours; b) evidence based behaviour management procedures.

Evaluation

Recommendation 22: The AGCP recommends that the Ministries of Health, Education and Social Development should collaborate to establish a single cross-agency “Programme Evaluation Centre” with the following responsibilities:

- Evaluating the fidelity with which new programmes to treat conduct disorder are being delivered.
- Collecting data regarding the effectiveness of evidence based programmes in halting and reversing antisocial development.
- Identifying barriers to treatment and ways in which these can be overcome.
- Informing future developments in the transition to more cost effective, evidence based treatments for antisocial development in children and youth in New Zealand.

Recommendation 23: The Ministries of Health, Education and Social Development consider the extent to which existing databases can be updated to provide comprehensive and consistent information on the treatment outcomes of clients referred to their services for antisocial behaviours.

Recommendation 24: The AGCP recommends that the Ministries of Education, Health and Social Development collaborate to develop data sharing procedures and protocols so that the assessment and evaluation data which is being collected regarding: a) individual children and youth; and b) particular programme implementations, can be shared and readily compared across CAMH, Special Education and CYF services.

Recommendation 25: The AGCP recommends that, during the transition to evidence based practice, the Ministries of Health, Education and Social Development seek out opportunities for controlled research designed to develop our understanding of: a) barriers to implementation; and b) factors resulting in treatment failure in the New Zealand context.

Māori imperatives

Recommendation 26: The AGCP recommends that, order to meet its Treaty obligations, Government establish an on-going funding stream within the Whānau Ora programme to provide for suitably qualified Māori psychologists and social workers to develop and evaluate kaupapa Māori programmes designed specifically for Māori rangatahi who are engaging in elevated rates of antisocial behaviour, risky behaviour, and/or offending.

Recommendation 27: Programme relevance. Given the disproportionately high representation of rangatahi Māori in antisocial behaviour referrals, Western Science evidence-based programmes and standardised assessments used with rangatahi must be authenticated for their:

- Cultural relevance and cultural safety.
- Efficacy for rangatahi and whānau.
- Effectiveness: the ability to demonstrate sustained outcomes.
- Alignment to te ao Māori and ecological perspectives.

Recommendation 28: Address issues of equity. Government agency policy advisors and decision-makers need to address equity issues when allocating funding and resources that respond to conduct problems in Aotearoa New Zealand, by:

- Equitably funding kaupapa Māori programmes to a level commensurate with the rates of risk for conduct problems in the Māori adolescent population.
- Equitably funding robust evaluations of kaupapa Māori programmes so that a culturally relevant evidence base can be established.
- Including kaupapa Māori programmes in the range of services offered by Child and Adolescent Mental Health Services.
- Equitably funding small scale, replicated research enquiries in culturally relevant contexts for Māori, where Māori voice is the majority.

Recommendation 29: Collaborative interagency approaches. Work collaboratively across government and NGOs to strengthen te ao Māori responses to conduct problems and support development of the evidence base. Use collaborative engagement such as wānanga to support current work being undertaken by the Ministries of Education, Health and Social Development regarding development of kaupapa Māori programmes (Huakina Mai) and enhancement of western science-based programmes (Positive Behaviour For Learning: School-wide).

Recommendation 30: Maintain an ecological perspective. All programmes delivered to Māori should maintain a focus on support to whānau and wider contexts such as schools and communities rather than an individual's conduct problem becoming the treatment focus. Effective programmes are not only concerned with high quality technical processes in the delivery of services; they also require a high level of responsiveness to the contexts within which rangatahi live. This includes collaborative exchanges of information between participants in a process of reciprocal learning or ako.

Recommendation 31: Culturally responsive assessment. Work to ensure assessment approaches for use with rangatahi derive from te ao Māori perspectives and therefore reflect the contextual and ecological realities associated with cultural loss, group membership, self-efficacy and cultural identity.

Recommendation 32: Training and professional development. Lift the cultural and clinical capacity/capability of professionals working with whānau and conduct problems to:

- Increase the te ao Māori content and cultural competency content of training for all professionals, including through working with Te Rau Matatini.
- Ensure qualifications in te ao Māori behavioural psychology and social work are offered and career options established.
- Ensure mainstream training of Psychologists and Resource Teachers Learning and Behaviour includes comprehensive and culturally relevant evidence-based content so as to enhance understanding of te ao Māori and effective responses to conduct problems.
- Enlarge the Māori research workforce by increasing the funding of and training for Māori psychologists, therapists and researchers.

Chapter 1 Background to the report

1.1 Introduction

This report is the fourth in a series of reports prepared by the Advisory Group on Conduct Problems (AGCP). The AGCP is an advisory group convened by the Ministries of Social Development, Education and Health to provide Government with expert advice on the treatment, management and prevention of conduct problems in childhood and adolescence. For the purposes of these reports conduct problems are defined as follows:

“Childhood conduct problems include a spectrum of antisocial, aggressive, dishonest, delinquent, defiant and disruptive behaviours. These behaviours may vary from none to severe, and may have the following consequences for the child/young person and those around him/her - stress, distress and concern to adult caregivers and authority figures; threats to the physical safety of the young people involved and their peers; disruption of home, school or other environments; and involvement of the criminal justice system [1].”

1.1.1 The first report prepared by the group provided an overview of the prevalence of childhood conduct problems and of the types of interventions that were suitable for early childhood (3–7 years), middle childhood (8–12 years) and adolescence (13–17 years) [1]. The report concluded that there were a growing number of effective interventions for addressing conduct problems and suggested the need for New Zealand to invest in the identification, implementation and evaluation of evidence based programmes for the treatment of childhood conduct problems. This theme was taken up in report 2 [2], which provided an in-depth examination of the issues involved in the identification, implementation and evaluation of effective methods for preventing, treating and managing conduct problems in 3–7 year olds. That review outlined a portfolio of interventions ranging from universal non-targeted programmes to highly intensive programmes for children with severe conduct problems. Separate recommendations were made for the implementation of home and school based programmes. Methodologies for implementing and evaluating these programmes were described. The third report [3] examined effective policies, programmes and interventions for addressing conduct problems in 8–12 year olds. This report built on the foundations laid in reports 1 and 2 and also provided a comprehensive analysis of issues relating to conduct problems from a te ao Māori perspective.

1.1.2 In this report, AGCP deliberations focus upon the identification, implementation and evaluation of programmes aimed at the prevention, treatment and management of conduct problems in 13–17 year olds.

Before presenting the findings of the Committee’s deliberations it is important to recognise two general points relating to the prevention, treatment and management of conduct problems in childhood and adolescence. The first point is that, as a general rule, early intervention which prevents or successfully treats the onset of problems before adolescence is likely to have greatest benefits in reducing the population prevalence of these problems [4]. The second point is that although in this report the AGCP was able to identify a number of programmes that have established efficacy in the treatment and management of adolescent conduct problems, the benefits of these programmes are often quite modest [5]. Once young people have reached adolescence with a pattern of well-developed antisocial behaviours it proves difficult to change these behaviours. For this reason, it is important that the recommendations made in this report are not treated in isolation and are seen as part of a wider endeavour to invest in programmes and interventions that prevent, treat or manage conduct problems over the life course from early childhood into adulthood. While investing in adolescent interventions is a necessary part of this endeavour, greater returns are likely to be obtained from programmes that address the development of conduct problems in early and middle childhood [6].

1.2 The development of conduct problems in adolescence

For many young people with conduct problems, these problems will represent a continuation and exacerbation of conduct problems which were evident at an earlier developmental stage and which are likely to continue in the future. Such young people are described as having “life course persistent” conduct problems [7]. However, not all young people who exhibit conduct problems will show this life course persistent pattern. As Moffitt and others have found, there is also a group of young people whose behaviour has been generally unproblematic until adolescence who develop conduct problems which are limited to the period of adolescence. These problems are believed to largely have their origin in patterns of adolescent peer influence and experimentation that encourage young people who previously did not display problematic behaviour to engage in risk taking and antisocial behaviours during adolescence. This group of young people is usually described as having “adolescent limited” conduct problems [7] .

The distinction between life course persistent and adolescent limited conduct problems is important in considering programmes for the prevention, treatment and management of adolescent conduct

problems, since for the most part adolescent limited conduct problems are self-limiting and often do not lead to longer term antisocial behaviours. For these reasons, it is important in both assessing and discussing adolescent antisocial behaviours that clear distinctions are made between life persistent and adolescent limited variants of these behaviours. It is also important to consider this distinction in choosing programmes, with the use of intensive (Tier 3) programmes being confined to those who exhibit life course persistent behaviours, whilst programmes for those with adolescence limited problems are likely to be less intensive and intrusive into the life of the young person and their family.

1.3 The assumptions of this report

1.3.1 The recommendations contained in this report are based upon an agreed set of assumptions shared by members of the AGCP. These assumptions centre around the view that the best route to effective policy development in this area is one based on the Prevention Science paradigm [8, 9].

The key elements of this paradigm are:

- The selection of policies and programmes should be based on reviews and meta-analyses of evidence from scientific literature.
- The development of an intervention should be preceded by thorough pilot research to examine programme feasibility, acceptability and factors affecting fidelity of delivery.
- A critical stage of the implementation process requires the use of randomised controlled trials in which those exposed to the intervention are compared with those receiving “treatment as usual” to determine whether the proposed intervention has benefits additional to those of existing treatments. This stage of the implementation/evaluation process establishes what has been described as “programme effectiveness”: whether the programme has benefits when tested under real life conditions.
- The final stage of the process requires implementing programmes with proven effectiveness on a population wide basis. This stage of the process can be used to establish the extent to which the programme retains its effectiveness when implemented across the entire country.

1.4 Issues for Māori

The explicit adoption of a Prevention Science framework for policy development raises important issues about the interface between science-based policy and policy for Māori. In particular, in recent years there have been growing views amongst Māori about the need to develop policies founded on indigenous models of knowledge and to place such policies in what has become known as a

“kaupapa Māori” framework [10, 11]. This raises the issue that the Prevention Science framework espoused by the AGCP and the emerging kaupapa Māori model have a number of fundamental differences about the nature of explanation and evidence [3]. In previous reports the AGCP has proposed that the best way of reconciling the tensions that exist between Prevention Science and kaupapa Māori epistemology was to adopt a solution that was based directly on Articles 2 and 3 of the Treaty of Waitangi. The solution proposed was as follows:

- To meet the obligations implied by Article 2 of the Treaty of Waitangi, it was recommended that a separate Māori advisory group was set up to provide advice on the development of policy regarding conduct problems from a te ao Māori perspective.
- The AGCP should focus on the development of generic services for all New Zealanders including Māori. To meet the obligations of equality, implicit in Article 3 of the Treaty, it was recognised that these services need to be delivered in a culturally appropriate way to ensure Māori equitable access to generic services.

This report retains the approach described above but also includes Article 1 of the Treaty. The important underlying principle here, central to Article 1 of the Treaty, is partnership. The intent of the recommendations above is to:

- Recognise the unique status of Māori as tāngata whenua as guaranteed by Article 2 of the Treaty of Waitangi.
- Recognise the rights of Māori to have equitable and culturally appropriate access to generic programmes and services as guaranteed by Article 3 of the Treaty of Waitangi.

1.4.1 The important implication of this approach is that the policies and interventions proposed in this report are Prevention Science based recommendations designed to provide generic services for all New Zealanders (including services that are enhanced to be responsive to Māori). However, none of the suggestions, recommendations or conclusions developed in this report preclude in any way the development of te ao Māori based services and interventions to provide assistance to Māori within a by Māori for Māori framework.

1.5 Reconciling Prevention Science and Mātauranga Māori perspectives

While the Prevention Science and te ao Māori perspectives are sometimes presented as being in conflict, the AGCP has spent considerable time reflecting on ways and means of reconciling these approaches so that both may be represented in policy development. These deliberations have

resulted in the development of the He Awa Whiria framework that was proposed by Professor Angus Hikairo Macfarlane in our previous report [3].

Figure 1 sets out the key elements of the He Awa Whiria model. This diagram is based on the analogy of a braided river (*he awa whiria*) in which there are two main streams representing the Prevention Science and kaupapa Māori models which are interconnected by minor tributaries, with the two streams reaching a point of convergence.

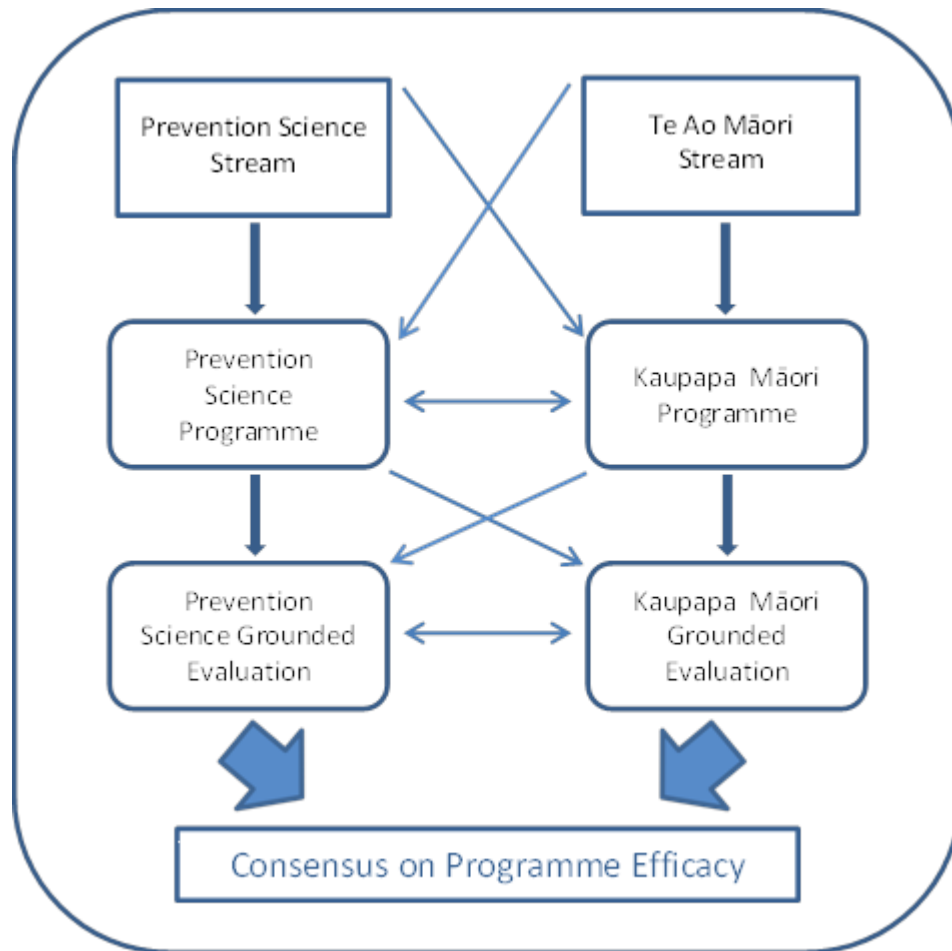


Figure 1-1 Parallel streams model of Prevention Science and kaupapa Māori programme development and evaluation.

Some of the key features of this model are:

- The Prevention Science and kaupapa Māori streams are acknowledged as distinctive approaches to the development and evaluation of programmes.
- The model permits knowledge from the kaupapa Māori stream to inform the development of and knowledge from Prevention Science programmes to inform the development of kaupapa Māori programmes.

- The model also permits the evaluation methodologies used in the Prevention Science stream to be applied by the kaupapa Māori stream, and the evaluation methodologies used by kaupapa Māori research can be applied to the Prevention Science stream.
- Finally, the model assumes that the acceptance of programmes as being effective will rely on an acceptance of evidence from both streams.

This report follows the spirit of the He Awa Whiria model. In Chapter 2 we review effective programmes using the Prevention Science approach outlined in Section 1.3. Chapter 4 gives a review of issues relating to adolescent conduct problems from a te ao Māori perspective. This chapter was prepared for the AGCP by Professor Angus Hikairo Macfarlane, Professor of Māori Research, University of Canterbury. Finally, Chapter 5 brings these knowledge streams together in an integrated set of recommendations that include Prevention Science and te ao Māori perspectives.

Chapter 2 The identification of effective interventions

In this section the AGCP identifies programmes and interventions that are likely to be effective and acceptable within New Zealand for the treatment and management of adolescents aged 13–17 who have significant conduct problems.

2.1 Criteria for identifying effective programmes

To identify programmes that are effective in the treatment and management of adolescent conduct problems, a three stage process was used.

In the first stage of the process, members of the AGCP consulted a series of systematic reviews and meta-analyses that examined effective treatments for the management of adolescent conduct disorders. This literature considered reviews and meta-analyses of interventions for adolescent conduct problems, aggression, and juvenile delinquency, which had been evaluated by multiple randomised controlled trials or multiple within-subject experimental analyses. The aims of this research were to identify the domain of interventions for conduct problems and antisocial behaviour that had been subject to systematic evaluation, and specifically those programmes for which there was strong evidence of efficacy in addressing adolescent conduct problems and/or antisocial behaviours. This information was synthesised into a major review of the evidence prepared by Dr John Church. This review is presented in Appendix 1. Dr Church’s review in combination with the assessments made by the AGCP formed the basis of the conclusions and recommendations. In the second stage of the process, the AGCP met and conferred to reach a consensus on the portfolio of effective programmes.

Before reporting this review, it is useful to make two general remarks about the state of the evidence on the prevention, treatment and management of antisocial behaviours in adolescence.

First, as a number of authors [e.g. 12] have pointed out, until recently there has been a widespread view that “nothing works” in this area. Our review of the evidence suggests that this is far from the case and there is a growing body of evidence that suggests that well designed and well implemented interventions can lead to significant reductions in antisocial behaviours in adolescents, including conduct problems, aggression and delinquency.

Second, while there is an emerging body of evidence about the effective treatment and management of adolescent conduct problems, the interpretation of this evidence is complicated by issues of study heterogeneity arising in: a) variation in the specification and manualisation of programmes; b) variation in the target populations to which these programmes are directed; and c) variation in the outcomes by which interventions are assessed. These sources of heterogeneity in the evidence pose considerable problems for assessing the extent to which reviews and meta-analyses of the evidence are comparing “like with like”. As will be discussed shortly, to address these issues of programme heterogeneity the present review has adopted a conservative strategy which requires the availability of strong evidence before programmes are accepted as being effective or rejected as being ineffective. Programmes not meeting these evidential criteria have been classified as “Inconclusive” to reflect the ambiguities in the available evidence.

2.2 The classification of programmes

There are a very large number of programmes that have attempted to prevent, treat or manage conduct problems in adolescents, with many of these being unevaluated or having only limited evaluation. The AGCP was of the view that reviewing all of the evidence on conduct problems interventions would have been time consuming and unproductive. To reduce the reviewing process to manageable dimensions it was decided to include only those interventions which met both of the following criteria: a) the intervention had been evaluated by at least one randomised trial or a set of at least five controlled within-subject experimental analyses; b) the efficacy of the approach had been evaluated in at least one meta-analysis or systematic review. Programmes and interventions selected for review were classified in terms of three dimensions, listed below.

2.2.1 Dimension 1: Programme effectiveness/efficacy

To classify evidence on the extent to which programmes or interventions were effective in reducing conduct problems and associated antisocial behaviours, a fourfold classification was developed:

1. *Recommended programmes*: These were programmes for which there was generally strong evidence of programme efficacy and which met all of the following inclusion criteria:
 - The intervention was founded on a clearly articulated theoretical model and the protocol for implementation of the intervention had been manualised.
 - The intervention had been evaluated by multiple randomised trials and/or single case experiments, with the majority of these showing evidence of efficacy.

- The intervention was widely regarded in the literature as being an effective treatment for antisocial behaviour.
- After reviewing the evidence, members of the AGCP were unanimously of the opinion that the intervention should be recommended as a method for treating and managing conduct problems in adolescence.

2. *Promising programmes:* These were programmes for which there was substantial evidence of programme efficacy for children under 13, with these programmes meeting all the criteria for recommended programmes. However, for these programmes, the evidence of the efficacy of the programme for adolescent population was limited and not sufficient for the AGCP to classify these programmes as recommended. Programmes classified as “Promising” met all of the following criteria:

- The intervention was founded on a clearly articulated theoretical model and the protocol for the implementation of the programme had been manualised.
- The efficacy of the intervention had been evaluated by multiple randomised trials and/or single case experiments on children under 13 and had been shown to be effective for this population.
- There was limited evidence available to show that the intervention could be successfully applied to 13–17 year olds.
- After reviewing the evidence, members of the AGCP were unanimously of the opinion that the approach should be classified as a “Promising” rather than “Recommended” approach to addressing adolescent conduct problems.

3. *Programmes for which the evidence was inconclusive:* These were programmes or interventions for which there was evidence of programme efficacy on the basis of randomised trials or quasi-experimental designs, but for which the evidence was not conclusive for any one of a number of reasons, including:

- The intervention had not been manualised, making translation of the programme to a new context difficult.
- There was substantial heterogeneity in the way that intervention had been applied in terms of methods of programme delivery, target population or outcome measures.
- Evidence on programme efficacy was variable, with some studies showing positive effects and others failing to find such effects.

- There was not wide agreement in the literature that the intervention was effective for the treatment and management of conduct problems and antisocial behaviours in adolescence.
- There were concerns that the evidence of the efficacy of the intervention may have been influenced by other interventions which were delivered at the same time.
- After considering the evidence, the AGCP was of the view that the evidence on programme efficacy was not sufficiently strong to recommend the programme, nor was the evidence sufficiently strong to conclude that the programme was ineffective.

4. *Not recommended:* These were interventions for which there was strong and consistent evidence to suggest that the programme was either ineffective or harmful. Interventions classified as “Not recommended” met all of the following criteria:

- The intervention had been evaluated in multiple randomised trials, with the majority of these trials finding that the intervention was ineffective or potentially harmful.
- There was general agreement in the literature that the approach was either ineffective or increased antisocial behaviour.
- After reviewing the available evidence, the AGCP was of the view that the programme could not be recommended as an effective or safe intervention for the management of conduct problems and antisocial behaviour in adolescence.

2.2.2 Dimension 2: Target population

The programmes reviewed by the AGCP varied in terms of the target population, with some programmes targeting all young people, some programmes targeting “at risk youth”, and some programmes targeting young people with severe behavioural disturbance. Following the practice in previous AGCP reports [2, 3] variations in the target population programmes were classified into three tiers.

- *Tier 1 programmes:* Universal programmes that are targeted at all parents, teachers, schools or young people.
- *Tier 2 programmes:* Those programmes which would normally be the first programme offered to young people identified as having significant levels of conduct problems.
- *Tier 3 programmes:* More intensive therapeutic programmes that are provided in cases where the young person shows severe conduct problems or where treatment by a Tier 2 programme has not been successful.

It is important to note that a number of interventions reviewed in this report involved more than one of these tiers.

2.2.3 Dimension 3: Programme setting

A final dimension on which interventions varied was the social context in which the programme was delivered. To represent this variation, programmes were classified into the following types:

- *Family based programmes*: Those which are delivered predominantly or exclusively in a family context.
- *School based programmes*: Those which are delivered predominantly or exclusively in a school context.
- *Residential programmes*: Those in which the young person is removed from the normal place of residence and lives in a treatment facility aimed at addressing the young person's behavioural problems.
- *Multimodal programmes*: Those which incorporate two or more of the programme types above.

To classify programmes that did not obviously fall into any of the above classifications, a residual "Other" category was added to the classification system.

2.3 Brief review of selected interventions

2.3.1 Recommended interventions

On the basis of the criteria outlined above, the AGCP classified four programmes as "Recommended". These programmes are described below. For each programme the description provides: a) the programme title; b) the programme tier(s); c) the programme setting; d) a summary of the programme approach. Where available, a link to a website describing the programme is provided.

1 Multi-systemic Therapy (MST)

(Tier 3; Multimodal; www.msts services.com)

MST is a family and community based therapeutic intervention that focuses on helping families deal with adolescent conduct problems (www.msts services.com). MST is delivered by trained therapists who have a case load of 4–6 families. The treatment focuses on addressing common risk factors for adolescent conduct problems and crime; low levels of parental monitoring; poor discipline practices; association with delinquent peers; and poor school performance. While a number of well controlled

US studies have suggested that MST is an effective approach for dealing with adolescent conduct problems, studies outside the US have sometimes failed to replicate these results [13, 14]. These findings have raised questions about the extent to which MST can be an effective intervention when implemented outside the context within which it was developed [14]. Despite these concerns, MST has been listed as an effective programme for the treatment and management of conduct problems in a large number of reviews of the evidence [15-19]. Given this evidence, the AGCP was of the view that MST should be classified as a recommended programme with the proviso that any implementation of this programme in New Zealand needs to be subject to thorough and critical evaluation before the programme is widely disseminated. A detailed review of the evidence on MST is given in Appendix 1, Part 4.

2 *Functional Family Therapy (FFT)*

(Tier 2; Family based; www.fftinc.com)

FFT is a structured family intervention which involves: a) disrupting the habitual negative interactions between family members by reframing these as opportunities for change; b) building motivation for change; c) improving parents' skills in the conflict management, limit setting, and contingency contracting techniques taught in all the effective parent management training programmes; and d) harnessing available community resources to overcome current environmental constraints.

FFT has been shown to be effective in reducing conduct problems and juvenile offending in a variety of settings within the juvenile justice system [20] and is widely recognised in the literature [16, 21] as an effective treatment for conduct problems and antisocial behaviours. On the basis of its review of the evidence, the AGCP was of the view that FFT should be classified as a recommended programme. A detailed review of the evidence of the efficacy of FFT is given in Appendix 1, Part 1.

3 *Multidimensional Treatment Foster Care (MTFC)*

(Tier 3; Residential; www.mtfc.com)

MTFC uses an approach in which young people are removed from their family environment and placed with specially trained and supervised foster parents who deliver a structured programme of intervention involving family life, schooling and recreational activities.

Randomised trials evaluating MTFC have consistently shown that this intervention reduces conduct problems and juvenile offending [15]. MTFC is widely recognised in the literature as an effective treatment for adolescents with severe conduct problems and antisocial behaviour [18]. For these

reasons the AGCP was of the view that MTFC should be classified as a recommended programme. A detailed description of MTFC and the evidence for programme efficacy is given in Appendix 1, Part 4.

4 *Teaching Family Homes (TFH)*

(Tier 3; Multimodal; www.teachingfamilyhomes.com)

The Teaching Family Homes model is one of the most extensively researched models for the residential treatment of young people with significant conduct problems and antisocial behaviour (www.teachingfamilyhomes.com). TFH uses a well specified behavioural treatment in a structured family style setting using full time married couples combined with a structured school curriculum, close supervision and a tiered reinforcement system to motivate improvement.

A recent major meta-analysis [22] concluded that TFH was one of the five most consistently effective treatments for delinquents. Because of the large amount of research into the efficacy of TFH and the consistent support for this approach, the AGCP was of the view that the Teaching Family Homes model should be included in the listing of recommended interventions. A detailed description of TFH and evidence of programme efficacy is given in Appendix 1, Part 4.

2.3.2 Promising interventions

Seven interventions were classified as “Promising” on the basis of the criteria set out above. These programmes are described below. For each programme the description provides: a) the programme title; b) the programme tier(s); c) the programme setting; d) a description of the programme approach. Where available, a link to a website describing the programme is provided.

1 *Aggression Replacement Training (ART)*

(Tier 3; Other; <http://www.aggressionreplacementtraining.org/HOME.html>)

This is an interpersonal skills training programme for aggressive juvenile offenders. It teaches social skills, impulse and anger control, and moral reasoning. New skills are practised using role playing in small groups over a 10-week period.

Three small RCTs by the programme developers have shown small post-training reductions in offending, and ART has been cited in several major reviews as an effective treatment for adolescents with problems of aggression [23-26]. For these reasons the AGCP was of the view that ART should be classified as a promising programme. A detailed description of ART and the evidence supporting this programme is given in Appendix 1, Part 3.

2 *Teen Triple P*

(Tier 2; Family; <http://www33.triplep.net>)

Standard Teen Triple P is a parent management training intervention designed to be delivered individually to parents with concerns about their teenager's behaviour. Standard Teen Triple P is delivered by a qualified provider, usually over the course of ten (1 hour) sessions, to parents of teenagers up to 16 years of age. The intervention involves thoroughly assessing parent-teenager interactions, applying parenting skills to a broad range of teen behaviour problems, and using generalisation enhancement strategies to promote parental autonomy.

As Church notes, there has only been one randomised trials of Teen Triple P, which used relatively weak outcome measures (see Appendix 1, Part 1). However, the likely efficacy of the approach is underwritten by the extensive body of evidence of the Triple P programme in younger populations [27]. For these reasons, the AGCP classified Teen Triple P as a promising programme. An account of Teen Triple P and the evidence in support of this programme is given in Appendix 1, Part 1.

3 *School-Wide Positive Behaviour Support (SWPBS)*

(Tiers 1, 2, 3; School based; www.pbis.org/school/what_is_swpbs.aspx)

SWPBS is a multi-tiered prevention-intervention model that provides a continuum of positive behavioural support strategies in school settings. SWPBS fosters positive school environments so that all students, most particularly students with disabilities, can be successfully included within general education programmes. SWPBS is comprised of three levels of intervention implementation: universal, selected, and indicated (individualised). The three intervention tiers build upon one another, and each tier has a specific intervention focus and process for implementation.

So far, there has been one randomised trial at the primary school level and one at the secondary school level [28, 29]. In addition, SWPBS has been evaluated using a within-group design at a Chicago High School of 1,800 students [30]. Given this evidence, the AGCP classified SWPBS as a promising programme for the prevention, treatment and management of adolescent conduct problems. An account of SWPBS and the evidence supporting this approach is given in Appendix 1, Part 2.

4 *Prevent – Teach – Reinforce (PTR)*

(Tiers 2, 3; School based)

PTR is a school based intervention intended to address the needs of primary and secondary school students who present with intense, chronic, and durable problem behaviours. The five-step process uses a systematic collaborative approach, allowing teachers to guide the development and implementation of the intervention with the assistance of a university-based research consultant (PTR consultant) and a reader-friendly manual. The manual includes background content related to each step and provides clear directions for activities that should be occurring in each meeting. Embedded in the manual are homework assignments that are completed by each team member between meetings and provided to the PTR consultant at an agreed-upon due date so that input can be synthesised and presented at meetings for refinement.

While PTR has been evaluated by only one randomised trial [31], the programme is underwritten by substantial single subject research into the management of conduct problems in a school setting [32]. For these reasons the AGCP classified PTR as a promising programme for the treatment of conduct problems in adolescence. An account of PTR and the evidence supporting this programme is given in Appendix 1, Part 2.

5 *Adolescent Transitions Program (ATP)*

(Tiers 1, 2, 3; Multimodal; www.strengtheningfamilies.org/html/programs_1999/08_ATP.html)

The Adolescent Transitions Program (ATP) is a multilevel, family-centred intervention delivered in the middle school setting. The intervention works within a “tiered” strategy (universal, selected, and indicated), where each level builds on the previous level.

- The universal level of the ATP strategy, directed to the parents of all students in a school, establishes a Family Resource Centre. The goal, through collaboration with the school staff, is to engage parents, establish norms for parenting practices, and disseminate information about risks for problem behaviour and substance use in the teenage years.
- The selected level of intervention, the “Family Check-Up”, offers family assessment and professional support to identify those families at risk for problem behaviour and substance use.
- The indicated level, the “Parent Focus” curriculum, provides direct professional support to parents for making the changes indicated by the Family Check-Up. Services may include

parent management training, family therapy, parenting groups, or case-management services.

This programme has been found to be effective in a single randomised trial [33]. In addition, the components of ATP (e.g. Parent Management Training Oregon), have been found to be effective in other studies. For these reasons ATP was classified by the AGCP as a promising programme. A detailed description of ATP and the evidence supporting this programme is given in Appendix 1, Part 1.

6 *Check and Connect*

(Tier 3; School based Intervention; www.ici.umn.edu/checkandconnect)

Check and Connect is a structured intervention that helps schools and organisations identify students who are at risk of dropping out of school, then pairs those students with trained mentors who address each student's individual needs to help them progress toward school completion.

Check and Connect is used with students as young as elementary school and as old as late high school. Each implementation of Check and Connect is tailored to the school or site where it is used, with the goal of making a long-term commitment to the students served. Participating sites purchase two days of initial training sessions to implement the programme, as well as programme materials to work with staff and students.

While there is evidence that Check and Connect reduces truancy and related school issues, there is currently no evidence to suggest that this intervention reduces rates of other adolescent conduct problems [34]. For this reason the AGCP classified Check and Connect as a promising programme. A detailed description of Check and Connect is given in Appendix 1, Part 2.

7 *Group Contingency Management Programmes*

(Tiers 1, 2; School based)

With Group Contingency Management, the teacher first establishes a small number (e.g. three or four) of positively stated behavioural rules; divides the class into teams, groups, or rows; establishes a reward criterion; and rewards either the winning team (or the teams which meet the criterion) with an agreed-upon privilege. The Good Behaviour Game version of group contingency management is a manualised programme [35].

The inclusion of Group Contingency Management as an evidence based behaviour management programme suitable for high school classrooms rests on the results of four well controlled within-

group experiments involving secondary school classrooms together with the fact that there have been more than 10 within-group evaluations involving 10- to 17-year old students (see Appendix 1, Part 2). Group Contingency Management has been used to reduce disruptive and antisocial behaviour to very low levels, to improve engagement and achievement and to teach students how to evaluate their own classroom behaviour.

For these reasons, the AGCP classified Group Contingency Management programmes as a promising approach to the management of conduct problems in classroom settings.

2.3.3 Interventions for which the evidence is inconclusive

The AGCP identified five intervention approaches where the evidence was classified as “Inconclusive” using the criteria outlined in Section 2.2. These approaches were distinguished from the recommended and promising programmes by several features.

First, most of the areas did not involve a single manualised programme but rather a general approach which had been applied in different ways and in different contexts.

Second, the evidence on these approaches was often contradictory and inconsistent and, where positive effects were claimed, they were usually small.

Third, there was substantial variability in the justification for the approach and the ways in which it had been evaluated. These sources of heterogeneity all conspired to make it difficult to draw clear conclusions about the effectiveness of these approaches as methods for reducing adolescent conduct problems.

1 *Mentoring interventions*

(Tiers 2, 3; Other)

These programmes pair an “at risk” youth with an adult who can function as role model and provide supervision, support and guidance. These programmes are popular and frequently advocated interventions to reduce conduct problems in adolescent populations [36]. Mentors are usually volunteers who may not have any specialist training in behaviour analysis or adolescent psychology. The best known and evaluated of these programmes is the “Big Brothers Big Sisters” programme developed in the US (<http://www.bbbs.org>) [37, 38].

Various reviews of mentoring programmes have reached somewhat different views of mentoring as a means of addressing antisocial behaviours in young people. The US Blueprints initiative recommends these programmes as part of its portfolio of programmes to reduce violence in young

people [39]. On the other hand, Church [40], after reviewing the evidence for the AGCP states, “No conclusion about the effectiveness of these programmes is possible at this time...” These issues have been further addressed in a recent meta-analysis by Tolan [36], who in a review of 39 studies found that mentoring had small to moderate effects on rates of delinquency and related outcomes. While most of these studies focussed on “at risk” youth rather than young people with conduct problems, at least four of the studies reviewed provided evidence that mentoring when applied to young people with significant conduct problems leads to significant reductions in conduct problems. However, Tolan[36] draws attention to a pervasive lack of description of the key features of mentoring programmes and the way these programmes seek to effect behaviour change. They comment that, “Perhaps the more striking statement to be made is that despite its popularity and the apparent benefits it (mentoring) provides, there is little understanding of just what makes an intervention mentoring and what about such labelled interventions is related to benefits derived” (p.21). In addition, in many of the studies reviewed, mentoring was accompanied by other interventions, raising the possibility that the treatment effects reported by Tolan [36] are attributable to other treatments that may have accompanied mentoring. Similar concerns about the efficacy of mentoring programmes have been raised by other reviewers [38, 41].

These considerations suggest that before mentoring programmes can be accepted as part of effective treatments for adolescent conduct problems, there is need for greater work in clarifying the content of these programmes and ensuring greater clarity about programme aims, programme delivery and programme fidelity.

Because of these problems with the evidence on the efficacy of mentoring programmes, the AGCP was of the view that the evidence for the effectiveness of these programmes should be classified as “Inconclusive”.

2 *Wilderness/outdoor education programmes*

(Tiers 2, 3; Residential)

In these programmes, young people typically engage in a series of physically challenging activities such as back packing or rock climbing. While these programmes vary widely in their setting, activities and goals, their treatment concepts are grounded in the theory of experiential education. These programmes centre around two features of experiential learning that are believed to ameliorate tendencies to antisocial behaviours. The first feature is that by mastering physical challenges the young person builds confidence, self-esteem and a more internalised locus of control [42, 43]. The second feature is that the group interaction and cooperation required by wilderness programmes

encourages the development of social skills. In addition, many wilderness programmes include therapeutic programmes designed to address issues such as substance use.

The effectiveness of wilderness programmes in addressing delinquency has been addressed in a meta-analysis of 22 studies that compared the outcomes of those attending wilderness programmes with a control series [43]. This analysis showed that overall participation in wilderness programmes had a small but detectable benefit on future offending. The pooled rates of recidivism for those attending wilderness programmes were 29%, compared to 37% for the control series. Programme benefits tended to be greatest for programmes involving intense physical activity and those which included a therapeutic component.

However, wilderness programmes share features in common with mentoring programmes in that there is a wide variation in both programme content and programme outcomes. What the findings of the research in this area suggest is that well-designed programmes may have positive effects in reducing conduct problems but that not all versions of this approach are equally effective. For all of these reasons the AGCP was of the view that it was prudent to classify the evidence on wilderness programmes as treatments for adolescent conduct problems as being “Inconclusive”. However, this conclusion does not imply that Wilderness/ Outdoor Education programmes are without merit for other populations of teenagers.

3 *Restorative Justice (RJ)*

(Tiers 2, 3; Other)

Restorative Justice (RJ) refers to a general approach to administering juvenile justice in which the focus of the process is on crime and wrongdoing as acted against the individual or community rather than the state. In restorative justice processes the person who has harmed takes responsibility for their actions and the person who has been harmed may take a central role in the process, in many instances receiving apologies and reparation from the offender. The approach covers a broad range of methodologies administered in different contexts, in different ways and for different reasons. For example, the New Zealand developed Family Group Conference (FGC) is widely cited as an example of early and innovative restorative justice.

While the primary role of RJ is to provide an alternative to conventional justice processes there have been a number of claims that this approach may reduce rates of recidivism by young offenders [44, 45]. In a recent review of the evidence on RJ, Sherman and Strang [44] concluded that there was some evidence to suggest that RJ was effective in reducing recidivism among young offenders.

However, these findings were not consistent and varied depending on factors such as gender, ethnicity and where RJ had been delivered.

More recently, the UK Ministry of Justice set up a series of randomised trials to examine the benefits of RJ. The extent to which RJ reduced rates of future offending was reviewed by Shapland [45]. In commenting on the findings, Shapland [45], note, "Not surprisingly, given the previous literature on reconviction and restorative justice, many results were not statistically significant" (p.33). However, the study did find that those exposed to RJ had fewer reconvictions but there were no significant differences with respect to likelihood of reconviction; severity of reconvictions or costs of convictions when compared to the control group. The authors attribute the lack of significant findings to the relatively small samples used in the randomised trials.

Collectively, this evidence suggests that while RJ shows some promise as a method of addressing conduct problems, there is a need to gather further and better data. In addition, RJ is probably best viewed as an alternative to established court processes rather than as a treatment for young offending in its own right [46]. These considerations suggest that to be fully effective for offenders with persistent conduct problems; RJ needs to be accompanied by effective treatments for conduct problems. Because of the heterogeneity in RJ approaches and the heterogeneity in the findings from this approach, the AGCP was of the view that the evidence on the effectiveness of RJ as a method for treating adolescent conduct problems should be classified as "Inconclusive" at the present time.

It is important to recognise that these conclusions do not imply that RJ, when compared with conventional juvenile justice methods, is without benefit. Indeed, other analyses of the UK data reported by Shapland [45] showed that both victims and participants in the RJ process had far greater satisfaction with the process than was the case for those participating in conventional justice systems. The weight of the evidence thus suggests that as a system for addressing juvenile justice, RJ has considerable merit even though the benefits of RJ as a means of reducing conduct problems in young people have yet to be fully established.

4 *Alternative Education (AE)*

(Tier 2, 3; School based)

Alternative Education (AE) is a term used to represent a wide variety of initiatives for students who have been expelled or dropped out of standard public education secondary schools. Many of these young people will have severe antisocial behaviours including conduct problems and delinquency. Specific AE initiatives include: separate schools; schools within schools; after schools; career

academies and after care initiatives. In New Zealand there are currently some 1800 places available in AE which represent approximately 0.2% of the total compulsory school population [47].

While AE has been frequently advocated as a method for addressing antisocial behaviours in young people, the evidence on the efficacy of AE is both limited and divided. Specifically, a major review of this area by Kilma [48] concluded that there was no consistent evidence to suggest that AE had any impact on attendance, achievement, or programme completion. On the other hand, a recent literature review by Gutherson [49], concluded that AE offered advantages in a number of areas including reductions in rates of antisocial behaviours. These differing views and conclusions may in part reflect differences in the definition of AE used in Klima [48], and Gutherson [49]. These differences highlight a major problem with the literature on AE since this term has been applied to a wide range of heterogeneous problems applied in different ways, in different contexts and for different reasons. The heterogeneity of programmes thus precludes any clear conclusions about the likely efficacy of this approach as a means of reducing antisocial behaviours in young people. There are, however, suggestions that AE programmes which incorporate evidence based interventions such as Check and Connect and Aggression Replacement Therapy may be effective in reducing rates of antisocial behaviour in young people [50]. However, whether these benefits are due to the effects of AE or simply reflect positive outcomes arising from the use of evidence based programmes is unclear. Finally, a factor which may limit the efficacy of AE is the adverse effects of peer influence resulting from bringing children with behavioural problems together in a common school setting [51].

Because of the lack of clear and consistent benefits for AE, the AGCP was of the view that the evidence on the efficacy of AE as an approach to address conduct problems should be classified as “Inconclusive”. It is important to note that this classification does not imply that all AE programmes are without benefit. However, the classification does imply that before a particular model of AE is instituted and widely promulgated, there is a need for a thorough evaluation of the efficacy of the programme using rigorous methods of evaluation.

5 *Institutional facilities*

(Tier 3; Residential)

In these facilities, serious young offenders are incarcerated in an institutional setting which may provide a range of programmes and services designed to address problems of personal adjustment and reduce risks of re-offending. In addition, these facilities serve the social function of protecting the community from the behaviours of seriously antisocial young people. While it has been widely argued that institutional treatments are ineffective and may be harmful, [52, 53] a recent review of

the evidence on the effectiveness of these treatments has challenged this conclusion [54]. This analysis provided a narrative review of 12 meta-analyses of the effects of residential treatments on recidivism. These analyses concluded that there was evidence of a small benefit of institutional treatment, with those exposed to residential treatment having rates of recidivism that were 9% lower than the comparison series [54]. These findings suggest that under some circumstances the residential treatment of serious conduct disorder may have small beneficial effects. The principal difficulty with this conclusion concerns the heterogeneity of the evidence, since while it is clear that overall, institutional treatments may have small beneficial effects, the features of successful institutional treatment of young offending and conduct disorder have not been clearly defined [54]. For these reasons the AGCP was of the view that it was prudent to classify the evidence on the benefits of unspecified residential treatment programmes as “Inconclusive” at the present time. As was the case with Alternative Education, this classification does not imply that all institutional treatments are without benefit. Rather, the classification implies the need for the careful evaluation of institutional services before major investments are made in these services.

2.3.4 Interventions that are not recommended

The AGCP identified two classes of intervention for which there was consistent evidence of a lack of programme efficacy and a general consensus that the programme approach was likely to be ineffective or to increase antisocial behaviour. These interventions were: Military Style Training and Scared Straight type programmes.

1 *Military style training/boot camps*

(Tier 3; Residential)

A widely advocated intervention for juvenile offenders is military style training provided by “Boot Camps” or similar organisations [55]. In the typical boot camp, participants are expected to follow a rigorous daily schedule of activities including drill, ceremony and physical training. Correctional officers are given military titles and participants wear uniforms. These features may be supplemented by educational programmes and therapeutic approaches.

Despite the popularity of military style training, there is little evidence to support the view that this approach to addressing conduct problems and delinquency is effective. In a review of 45 studies evaluating boot camps and military style training, Wilson [55], found that the overall effects of boot camps were neutral. However, they did find evidence of considerable heterogeneity of results, with some studies reporting benefits and others finding negative effects. They conclude that the “...evidence suggests that the military component of boot camps is not effective in reducing post

boot camp offending (p.19).” At the same time this review suggested that boot camps that had a primary focus on therapeutic programmes may have beneficial effects. These findings suggest that while the military style training component of boot camps may be ineffective; these programmes may be more successful if they are adapted to provide a milieu for delivering therapeutic interventions having known efficacy.

Because of the generally negative evidence on Military Style/Boot Camps, the AGCP was of the view that these programmes were “Not recommended” as interventions for adolescents with significant conduct problems or antisocial behaviours.

2 *Scared Straight and related programmes*

(Tier 3; Other)

These programmes involve visits to prison by juvenile delinquents or children at risk for criminal behaviour. These programmes are designed to deter participants through first hand observations of prison life and interaction with adult inmates and have been promoted in the media as an effective method of reducing crime and delinquency. In fact, the opposite appears to be the case. In a meta-analysis of nine randomised trials, Petrosino [56] concluded that “programmes like ‘Scared Straight’ are likely to have a harmful effect and increase delinquency relative to doing nothing at all to the same youths.” On the basis of this evidence the AGCP classified Scared Straight and related programmes as “Not recommended”.

2.4 Untested interventions

While the programmes summarised above represent those programmes which have been subject to multiple scientific evaluations and reviews, there are a large number of intervention programmes which have been advocated for the prevention, treatment and management of conduct problems which have not been subject to this rigorous process of evaluation.

Frequently it is possible to find strong endorsements of the efficacy of such interventions based on limited evaluations and anecdotes, but the lack of rigorous evaluation means that these interventions should be classified as being of unknown effectiveness. While it is possible that untested interventions have beneficial effects, it is also possible that these programmes may have harmful consequences. In particular, unevaluated programmes that are ineffective divert scarce funding and resources from programmes which we know to be effective. Further, as was shown in the Scared Straight example discussed above, in some instances well intentioned programmes may have harmful effects and lead to increased risks of antisocial behaviours. For all of these reasons it is

clear that governments should adopt a cautious approach to funding programmes of untested efficacy. Furthermore, if a decision is made to fund an untested programme, continued funding should always be made conditional on both the collection of adequate evaluation data and on demonstration that the outputs that were funded were actually achieved in a high proportion of cases.

2.5 The role of clinical and forensic services

The review above is largely focussed on the contributions of standardised, manualised treatments aimed at the prevention, management and treatment of conduct problems in young people.

However for young people with severe and recurrent antisocial behaviours such interventions may not be sufficient and there will be a need to provide the young person with individualised treatment and support delivered by a trained professional (e.g. psychiatrists, clinical psychologists, clinically trained social workers, or specialist teachers). Typically, the role of these clinical services will be fourfold:

1. *Assessment*: To provide a holistic assessment of the mental health problems and educational problems facing the young person. In particular, it is likely that conduct problems/disorders will be only one of a series of issues faced by the young person. Other conditions that are frequently comorbid with conduct problems include: attention deficit hyperactivity disorder; learning difficulties, neuropsychological deficits, substance abuse and dependence; major depression; post-traumatic stress disorder, anxiety disorders and suicidal thoughts (see also Chapter 3 of this report). The clinical treatment of young people with conduct disorders thus requires thorough assessment of the range of difficulties faced by young people. Of central importance to any good assessment plan is the inclusion of risk factors. Specifically, the risk the young person poses to themselves and others, along with any risk that others may pose to them. An important part of any assessment will also include physical health assessments [57].

2. *Development of treatment plan*: On the basis of the assessment, a treatment plan is developed. This treatment plan may include selection of the most appropriate service for implementation of some of the specialised interventions. It may also include recommendations of diagnosis-specific interventions for comorbid conditions including medication or those tailored to meet the needs of the individual, client or family; educational, social or cultural environment. Also important are what might be called humanistic or practical assistance to youth or families. Any treatment plan should identify a key worker (coordinator) and lead agency and mechanisms for coordinating the plan across agencies and persons.

3. *Direct provision of services to client:* Some interventions will be referred on to more appropriate agencies, both public and NGO, but some will be given by the assessing services. These may include individual or family therapies; mentoring and support; oversight of the young person's condition and well-being; monitoring of school attendance and progress with respect to the individual education plan; monitoring of medication (if relevant) and advocacy. The inclusion of the family in any intervention service is considered vital to any successful intervention with young people.

4. *Clear and mandated models of inter-agency working:* It is likely that many of the young people with moderate to severe conduct problems will require the involvement of a number of agencies in different sectors across mental health, physical health, education, CYFS and Justice. It is critical to the success of any treatment plan that there are clearly defined and functional models of interagency working relationships that place the best interests of the young person at the centre of the model.

While most services operate according to individual policies and the preferences, concepts or training of professionals in the service, there has been increasing recognition, especially in the health services, of the need to set standards known as best practice guidelines to serve as a benchmark. Clinical and educational services to young people with antisocial behaviour disorders are no exception to this trend. Among such guidelines are those published by the American Academy of Child and Adolescent Psychiatry (AACAP) on Conduct Disorder [58] and for youth in detention facilities [59]; the Canadian Psychiatric Association for Conduct Disorder [60] and the American Academy of Pediatrics on Health Care for Youth in Detention [57]. A useful recently developed resource for the management of adolescent conduct problems and the comorbidities of these problems is the MATCH-ADTC manual prepared by Chorpita and Weisz [61] discussed in greater detail in Chapter 3. MATCH-ADTC provides the clinician with a tool box of evidence based resources to address adolescent anxiety, depression, trauma and conduct problems.

The key features of these guidelines are too numerous to list here but the AACAP guidelines emphasise the need for: effective screening for mental health problems in correctional systems, timely referral, interagency collaboration, established standards of care, and continuing need for research into the needs of youth in youth justice systems (p.1096) [59].

In summary, high quality clinical services play a central role in the treatment and management of conduct problems in young people by:

- Providing professional assessment of the full range of disorders and difficulties faced by the young person.
- Developing and coordinating a treatment plan for the management of the young person's condition in cooperation with other services and agencies, including physical health services.
- Providing some direct individualised treatment and therapy to young people whose needs are not yet being met.
- Advocacy for young persons with conduct problems and for services development to meet their needs.

2.6 Concluding comments

It has been widely believed that little works in the prevention, treatment and management of conduct problems and delinquency in adolescence. However, the review presented above shows that this is far from the case and there are a growing number of evidence based interventions for the treatment and management of conduct problems in young people. These interventions range from Tier 1 interventions aimed at all young people, to intensive Tier 3 interventions targeted at young people with severe antisocial behaviours. Interventions have been developed for different settings including the family, the school and residential settings. Furthermore there is growing capacity to supplement evidence based interventions with intensive clinical treatment of young people with severe conduct problems.

Collectively, this evidence should provide the Government with a sound foundation for developing evidence based programmes, interventions and services to address adolescent conduct problems. The subsequent chapters of this report discuss the issues to be addressed in translating this body of evidence into effective programmes, interventions and services.

Chapter 3 Identifying and treating the comorbid difficulties experienced by youth with serious conduct problems

3.1 Introduction

A pervasive feature of adolescent conduct problems is that these problems frequently co-occur with other difficulties including mental health problems, learning problems and other issues. This co-occurrence of conditions is often described as "comorbidity". We will use this term in this section to describe tendencies for adolescent conduct problems to co-occur with other life course difficulties. An important implication of the comorbidities of conduct problems is that the successful prevention, treatment and management of conduct problems requires consideration of methods of addressing conditions that are comorbid with conduct problems. The focus of this section is upon identifying the common comorbidities of conduct disorders and providing brief reviews of effective methods for addressing these problems. The aim of this examination is to highlight the range of issues that may need to be addressed in providing effective treatment and management of young people with significant conduct problems.

3.2 The comorbidities of adolescent conduct problems

3.2.1 Attention Deficit Hyperactivity Disorder (ADHD)

The difficulty most often experienced by youth with serious conduct problems is Attention Deficit Hyperactivity Disorder (ADHD). The Diagnostic and Statistical Manual of the American Psychiatric Association Edition IV (DSM IV) [62], defines this condition as follows:

"The essential features of ADHD are:

A. Persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequently displayed and is more severe than is typically observed in individuals at comparable level of development.

B. Some hyperactive-impulsive or inattentive symptoms must have been present before seven years of age.

C. Some impairment from the symptoms must be present in at least two settings.

D. There must be clear evidence of interference with developmentally appropriate social, academic or occupational functioning.”

Studies of young people with clinically significant conduct problems including conduct disorder and oppositional defiant disorder have found that the majority (between 60-80%) of young people with these conditions will also meet criteria for ADHD [63-65].

While some authors [66-68] have questioned the validity and utility of the classification of ADHD, there are at least three lines of evidence which have suggested that this condition is distinct from other types of conduct problems.

First, factor analytic studies of behavioural inventories have consistently identified an ADHD factor that is distinct from, albeit correlated with, both conduct disorder and oppositional defiant disorder [69]. Second, longitudinal research has found that the developmental consequences of ADHD are different from the developmental consequences of conduct disorder or oppositional defiant disorder. Children with ADHD in the absence of conduct problems show educational and learning deficits but do not show the increased risks of antisocial behaviours, substance use or mental health problems that are associated with conduct disorder and oppositional defiant disorder [70-73]. Finally, twin studies have found that at least a portion of the genetic factors associated with ADHD are distinct from, albeit correlated with, the genetic factors associated with conduct disorder [74, 75].

All three lines of evidence support the conclusion that ADHD is a behaviour disorder that is distinct from conduct or oppositional defiant disorders, and which has its own specific symptoms, causes and consequences.

The two most commonly used treatments for ADHD are medication and training.

1. *Medication:* The most widely used yet controversial approach to the management of ADHD symptoms is the use of stimulant medication. Stimulants have been found to be the most effective short term medications available for the treatment of ADHD [76-79]. While short term clinical trials have shown medications to be effective for reducing ADHD symptoms, these treatments have not been found to improve school performance, and data are lacking on the long term effectiveness and the severity of side effects [80]. As a result of what has been seen as an over-reliance on stimulant medication in the treatment of ADHD, there is a growing consensus of the need for multi-modal treatments which combine both stimulant medication and training approaches [81-84].

2. *Training approaches:* There is growing evidence to suggest that ADHD symptoms can be managed and reduced by means of training programmes designed to foster increasingly sustained levels of attention, especially when these are combined with contingency management programmes designed to reinforce improvements in sustained attention. These programmes have an advantage over stimulant medication in that they can produce a permanent, rather than temporary, improvement in sustained attention and hence may also result in improved levels of school achievement [85, 86].

The AGCP recommends the following with respect to the treatment of young people with conduct problems:

- All young people coming to attention with significant conduct problems should be assessed for ADHD by a trained clinical psychologist or psychiatrist.
- In the planning of treatment for young people who present with both conduct problems and ADHD, a treatment programme should be developed to address the ADHD symptoms. This programme should include both training and contingency management and may also include stimulant medication for an initial period of time.
- Educational underachievement is the most frequent adverse consequence of ADHD. For this reason it is important that young people with comorbid conduct problems and ADHD are given a thorough educational assessment and are offered remedial support (see also Section 3.2.4 on conduct problems and academic delays).

3.2.2 Alcohol and substance misuse disorders

Young people with conduct problems are at increased risk of substance abuse/dependence involving alcohol, tobacco and illicit drugs [72]. The comorbidity between substance abuse/dependence and conduct problems in adolescence has important implications for the treatment and management of conduct problems for several reasons.

First, it is likely that substance misuse will increase antisocial behaviour as a result of the disinhibiting effects of alcohol and illicit drug use [87, 88].

Second, in the case of alcohol and illicit drugs, regular use is likely to encourage the formation of relationships with deviant and illicit drug using peers, with these relationships being likely to encourage and reinforce antisocial behaviour patterns [89-91].

Finally, the social and personal disorganisation caused by the use of alcohol and illicit drugs is likely to pose a significant barrier to young people participating in treatment programmes for conduct problems [92].

For all of these reasons, the effective treatment of comorbid substance abuse and dependence is an essential component of the treatment of adolescent conduct problems.

Extensive research has been undertaken into effective treatment of alcohol and drug misuse in young people [93-97]. The major conclusions that have emerged from this research may be summarised as follows:

- At a population level, the most effective approaches to reducing the abuse of alcohol by young people have been through the use of: price increases; limiting access to alcohol; increasing the minimum drinking age; and the regulation of advertising [98-101].
- There have been on-going debates about the benefits and risks of the prohibition of illicit drugs and particularly cannabis but there is little evidence that suggests that prohibition is an effective strategy [102]. Furthermore, prohibition is likely to encourage the development of illegal drug markets and associated antisocial behaviour [102]. The weight of the evidence thus favours the use of harm-avoidance approaches over the use of prohibition.
- There has been continued advocacy for alcohol and drug education programmes for young people but there is inconsistent evidence concerning whether these programmes are effective in reducing rates of adolescent substance use and misuse, with a number of studies failing to find significant long-term reductions in risks of substance use [103-107].
- A range of treatments have been identified as effective in the treatment of alcohol and drug misuse in young people. These include: cognitive behavioural therapies; motivational enhancement therapy and family based interventions [108-111]. In addition there is evidence which suggests that relatively brief interventions may be effective [110]. The major conclusions that may be drawn from these findings is that evidence based strategies for both the prevention and treatment of alcohol and drug problems in young people are currently available and it is important that these treatments are offered to adolescents with substance use disorders. It is therefore recommended that:
 - All young people coming to official attention for significant conduct problems should receive a thorough clinical assessment for substance use/abuse or dependence by a trained clinical psychologist or psychiatrist.
 - In situations in which young people with conduct problems meet clinical criteria for substance abuse or dependence, the treatment for conduct problems should be

accompanied by referral to an evidence based treatment programme for substance use disorders.

3.2.3 Major depression and suicidal behaviours

Adolescents with early onset conduct problems are at increased risks of depression and suicidal behaviours. Those having significant conduct problems in adolescence have approximately twice the risk of major depression and between 2–4 times the rate of suicidal thoughts, attempts and mortality of other young people [72, 112, 113]. For these reasons, the treatment and management of both major depression and suicidal tendencies is an important component of the treatment and management of adolescent conduct problems.

There have been a number of approaches to the treatment of depression in adolescence:

1. *Medication:* The medications most commonly used in the treatment of adolescent depression are the Selective Serotonin Re-uptake Inhibitors (SSRIs), with Fluoxetine being the SSRI with the best record in children and adolescents [114]. However there is still a relative paucity of randomised controlled trials of treatment intervention in clinical populations of adolescents, and highly publicised disagreement about potential adverse effects of SSRI medication in adolescents [115-117].
2. *Cognitive Behavioural Therapy (CBT):* CBT programmes for depressed adolescents involve the identification and reframing of dysfunctional beliefs and thoughts, the setting of daily goals which will produce increased enjoyment and reinforcement, and the teaching of simple techniques for managing rather than avoiding anxiety producing situations. There is growing evidence from randomised trials with adolescents and adults that well-designed CBT programmes can significantly reduce rates of depression [118, 119].
3. *Combined medication and CBT:* Both Fluoxetine and CBT have been shown to be effective in reducing depressive symptoms in adolescents with depressive symptoms in a number of RCTs [120]. The question of whether the use of combined Fluoxetine and CBT is more efficacious and cost effective than either treatment alone is less clear [121, 122], with some studies finding combined treatment to be more beneficial, and other studies showing no benefit of combined therapy when compared to Fluoxetine alone [123, 124].

Case-control studies of medically serious suicide attempts in young people show that 90% have an underlying psychiatric disorder, most commonly depression [113].

Comorbid conduct disorder and depression increases the relative risk of completed suicide, as does male gender, substance use and adverse family experiences [112]. The main thrust of treatment of young people at risk of suicide should have an adequate assessment for underlying psychiatric disorders, particularly depression, and effective treatment of disorder, combined with social support, adequate adult supervision, and removal of known risks such as firearms and medications [125].

Consideration of the risks of depression and suicidal tendencies amongst adolescents with significant conduct problems suggest that in the treatment and management of conduct problems it is important that:

- All young people with these conditions are provided with a comprehensive assessment of their current mental health, including major depression and suicidal tendencies.
- That in cases where significant issues with depression or suicidal behaviours are detected, that an appropriate treatment and case management programme is put in place.

3.2.4 Educational delay and under-achievement

While estimates of the rate of academic delay amongst young people with conduct problems have varied, there is generally consistent evidence to suggest that young people with these problems are at increased risk of educational delay and underachievement [126-128]. These educational deficits tend to increase with increasing age [129, 130], with the result that adolescents with significant conduct problems are an at risk group for: early school leaving, illiteracy and failure to enter tertiary training. For example, recent findings from the Christchurch Health and Development Study showed that adolescents meeting criteria for either conduct disorder or oppositional defiant disorder had rates of adverse educational outcomes (early school leaving; leaving school without qualifications; significant reading delays; failure to enter university) that were between two to three times higher than those having no symptoms of conduct problems [72, 131].

The linkages between adolescent conduct problems and educational achievement have been explained in a number of ways. First, it has been suggested that these linkages arise because the development of conduct problems impairs the young person's ability to engage with the education system as a result of both disruptive classroom behaviours and truancy [132].

Second, it has been suggested that these associations may arise because young people with conduct problems have other deficits (notably low IQ, ADHD and specific learning delays) which impair their educational achievement [133].

Finally, it has been proposed that educational under-achievement may encourage the development of conduct problems as a result of the experience of educational failure encouraging disaffection with the school environment [134, 135].

Although there have been continuing debates about the causes of underachievement in children with early onset conduct problems, there is no doubt that these learning delays complicate the treatment of conduct problems as a result of the limitations they impose on the young person's employment opportunities and longer term life opportunities. For these reasons, the identification and treatment of academic delay and under-achievement is an important component of the effective treatment of conduct problems in adolescence.

To address the academic difficulties faced by adolescents with conduct problems, teaching methods must be chosen which are known to be the most effective available [136]. With effective evidence based teaching, under-achieving adolescents with conduct problems can make 2 to 3 years' progress in basic academic skills per year of instruction [137]. Generally speaking, effective teaching practices are characterised by high rates of interaction with developmentally appropriate learning opportunities [136]. High rates of responding can be achieved using visual response systems, fast paced Direct Instruction, peer tutoring, and self-directed practice procedures, for example. All have been shown during controlled experiments to accelerate the academic progress of secondary school students with early onset conduct problems [138-141]. Effective remedial programmes also include a system for motivating continued school attendance and continued effort at school. Research to date indicates that the most effective motivational procedures are the individualised contingency management programmes. Examples of evidence based curriculum adaptations, teaching procedures and motivational systems are described in Part 2 of the Appendix to this report.

In conclusion:

- A substantial fraction of adolescents with conduct problems will present with significant educational delays that require attention.
- It is important that any assessment of adolescent conduct problems is also accompanied by a full and thorough assessment of the young person's academic strengths and difficulties.
- Adolescents with both conduct problems and significant academic delay should be referred to evidence based services which provide appropriate educational support and remedial assistance.

3.2.5 Risky Sexual Behaviour (RSB)

Young people with conduct problems are at increased risk of risky sexual behaviour (RSB), including initiation of sexual intercourse before the teenage years, unprotected sexual intercourse, coercive sexual behaviours/maltreatment, multiple sexual partners, unplanned pregnancy, early parenting, unstable relationships, and sexually transmitted infections (STI) [142-144]. Estimates suggest that rates of teenage pregnancy, child birth, and abortion in those with conduct problems are in the region of 4–5 times higher than for other young people [145].

The comorbidity between RSB and conduct problems in adolescence has important implications for the treatment and management of conduct problems for several reasons. First, it is likely that conduct problems will exacerbate tendencies to engage in RSB [144, 146, 147]. Second, individuals with conduct problems and RSB are likely to form sexual partnerships with adolescents who also have conduct problems and, as a consequence, end up raising their children in socio-economically disadvantaged and violent homes [148].

For these reasons, the effective treatment of risky sexual behaviours is an essential component of the treatment of adolescents with conduct problems. While there has been little research into interventions aimed at young people with conduct problems, there has been growing research into programmes aimed at reducing rates of teen pregnancy and other adverse outcomes of RSB in the general population. These approaches are reviewed below:

1. *Sex education in schools:* Around the world large investments have been made into sex education programmes in the school setting, with the aims of the programmes being to inform young people about sexual behaviours and to reduce rates of RSB [149]. The evidence on these programmes has been mixed, with some reviews finding no evidence of sex education reducing rates of risky sexual behaviours [150], whereas others have found benefits [151, 152]. The inconsistencies in the evidence in this area suggest that the purported benefits of sex education in schools should not be accepted at face value and require careful and thorough evaluation of efficacy in the setting in which sex education is being applied.
2. *Sexual health clinics:* A second approach to addressing RSB has been in medically staffed sexual health clinics which provide counselling and support. Results of randomised trials have shown that such clinics may reduce risks of sexually transmitted disease, increase contraceptive use and reduce rates of pregnancy in adolescent girls [153, 154].
3. *Other programmes:* In addition, there is evidence that multicomponent early childhood programmes such as the Perry Preschool Programme and the Abecedarian programme may have

moderate effects in reducing teenage pregnancy. Similar findings have been reported for multicomponent in-school and after-school positive youth development programmes, including the Seattle Social Development Project; Teen Outreach; the Quantum Opportunities Programme and the Carrera Model Programme [155]. In addition, Multidimensional Treatment Foster Care has been found to reduce rates of pregnancies in young women with a history of antisocial behaviour [156].

Consideration of the linkages between adolescent conduct problems and risky sexual behaviour suggests that adolescents coming to attention for significant conduct problems should:

- Undergo a thorough assessment to determine their involvement in risky sexual behaviours.
- Be provided with referrals to Sexual Health Clinics and other sources of support to give assistance with matters such as contraception, sexually transmitted diseases and related issues.

3.2.6 Child abuse

Young people with conduct problems have increased risks of being exposed to childhood physical and sexual abuse. A review of the evidence shows that young people with conduct problems have rates of childhood physical and sexual abuse that are significantly higher than rates for young people that do not have conduct problems [157]. Similar findings have been reported in other studies [158, 159].

There are three possible reasons for these comorbidities between conduct problems and child abuse. First, child abuse may act as a risk factor that increases the risk of the young person developing significant conduct problems. This conclusion is consistent with recent behavioural genetic research which has found that exposure to child abuse interacts with the MAOA genotype to increase risks of antisocial behaviour [160].

A second reason for young people with significant conduct problems having increased risks of child abuse may be due to the fact that many of these young people come from home environments characterised by multiple adversities including child abuse, with these adversities being associated with increased risks of conduct problems [161].

Finally, the association may arise because the development of significant conduct problems may, by various routes, expose the young person to greater risks of child abuse [162].

Whatever the mechanisms involved, the evidence suggests that many adolescents with conduct problems will have a history of significant childhood physical and sexual abuse [163].

The experience of maltreatment has been found to result in significant and serious psychological, behavioural and social consequences which can continue throughout adolescence into adulthood. Such outcomes include increased risk of internalising and externalising behaviours [164-166], post traumatic stress disorder [167, 168], antisocial or criminal behaviour [169, 170], suicide [171, 172] and abnormally overt or intrusive sexualised behaviour [173]. Additionally, youth who have experienced maltreatment are at greater risk of lower educational achievement [174, 175] and lower employment achievement [176].

These findings clearly suggest that the identification and treatment of child abuse and its sequelae should be an important component of the treatment and management of conduct problems in adolescence.

Most of the literature on the treatment and prevention of child abuse has focused on early and middle childhood. During these periods a number of interventions have been found to be effective:

- *Home visitation programmes* have been found to have varying levels of success [177]. However, the Nurse-Family Partnership and Early Start are two programmes which involve intensive visits to low-income first time mothers in the prenatal period and during infancy and have been proven to be successful in preventing particularly physical abuse and neglect [178, 179].
- *Parent-Child Interaction Therapy (PCIT)* is a behavioural parent training intervention which has been shown to significantly reduce rates of ongoing physically abusive behaviour [180].
- *Triple P*: There is recent evidence suggesting the Triple P parenting programme delivered at a population level may reduce rates of child abuse and neglect [181] see Appendix 1, Part 1.

In adolescence, Trauma-Focused Cognitive Behavioural Therapy (TF-CBT) has been found to be effective in achieving positive outcomes for maltreated individuals with post-traumatic stress symptoms, particularly those who are victims of sexual abuse [182]. TF-CBT addresses maladaptive thoughts and behaviour, development of skills, processing of traumatic experience, support and skill provision for non-perpetrating parents.

In conclusion:

- A substantial proportion of adolescents with significant conduct problems will present with a history of childhood physical or sexual abuse.
- It is important that any assessment of adolescent conduct problems is accompanied by an assessment of the young person's history of exposure to physical and sexual abuse.

- Where feasible, young people with significant histories of child abuse should be referred to agencies providing evidence based treatment for these problems. Due to the complex nature of the child's trauma history and their externalising behaviour, individual counselling may need to be undertaken over the medium term to reduce the level of externalising behaviour and to address other abuse related issues. It should also be borne in mind that treatment within institutional settings may expose young people to further risks of physical and sexual abuse.
- Finally, there is a clear need for greater investment in the development of evidence based approaches for the prevention of child abuse and its developmental consequences.

3.2.7 Physical health

There has been growing evidence from both cross-sectional and longitudinal research which suggests that rates of a wide range of physical health problems and conditions are more prevalent amongst young people with conduct problems. These outcomes include: poorer self-reported health; more frequent GP visits; higher rates of hospitalisation; greater risks of cardio vascular disease; higher rates of systemic inflammation; poorer lung function; increased rates of sexually transmitted disease; elevated rates of tooth decay and periodontal decay; higher rates of accidents and injuries e.g. [183-186]. These increases in health risks continue into adulthood and are evident for both those with life course persistent problems and adolescent limited conduct problems [187-190].

There are two general pathways that may explain the greater susceptibility of young people with conduct problems to physical health problems. First, it may be proposed that these outcomes reflect the higher rates of risk taking behaviours amongst these young people, with these tendencies leading young people with conduct problems to neglect their health and also to engage in risk taking behaviours that increase risks of unintentional injury and sexually transmitted disease. A second, but not mutually exclusive explanation is that the higher rates of physical health problems amongst young people with conduct disorders reflect the generally disadvantaged social backgrounds of many of these young people. Specifically, there is a large amount of evidence suggesting that young people with conduct problems frequently experience a multiply disadvantaged childhood marked by: poverty; family dysfunction; child abuse and related adversities. These and similar measures of adversity have been found to be predictive of a wide range of physical health outcomes. While it is not clear which of these accounts best provides an explanation of the higher rates of physical health problems in young people with conduct problems, it is clear that these young people are an "at risk" population for a wide range of adverse physical health problems over the life course.

The implications of these findings for the treatment and management of conduct problems are that:

- It is important that the various professional groups dealing with young people with conduct problems are aware of the general vulnerability of this population to physical health problems.
- It is important that when young people with conduct problems come to official attention it is important that any treatment or management plans include a thorough physical examination to assess the young person's general state of health and their vulnerability to longer term disease.
- In cases where young people with conduct problems are found to have significant health problems it is important that these young people are referred to the relevant health services for advice and treatment.

3.3 Concluding comments

This section has provided a brief overview of the main difficulties faced by adolescents with conduct problems and the treatment and management of these comorbid difficulties. Several important points emerge from the review. These may be summarised as follows:

1. *The importance of recognising comorbidity:* Adolescent conduct problems seldom occur in isolation and young people with these problems are likely to present with a range of other difficulties. These difficulties may span mental health conditions such as ADHD, substance use disorders, major depression, and suicidal behaviours; learning difficulties; physical and dental health problems; and significant childhood physical/sexual abuse. It is almost self-evident that unless the treatment of conduct problems is accompanied by treatment for these comorbid conditions, the chances of successful intervention will be reduced. These considerations suggest the need to embed conduct problem interventions into broader therapeutic milieus that have the capacity to address the complex mix of psychosocial problems faced by young people with significant conduct problems.

One innovative approach to addressing the comorbidities of adolescent conduct problems has been provided by the MATCH-ADTC resource developed by Chorpita and Weisz [61]. MATCH-ADTC is a resource for clinicians which provides material on the key components of evidence based programmes for the treatment of Anxiety Disorders (A); Depression (D), Trauma (T) and Conduct Problems (C). This approach thus recognises the important issue of the comorbidity of disorders and provides clinicians with an approach to the integrated treatment of comorbid conditions. Preliminary randomised trials have shown that MATCH-ADTC improves treatment

outcomes when compared with existing clinical practice. These findings clearly suggest that incorporating MATCH-ADTC into current clinical practice in New Zealand is likely to be beneficial.

2. *The importance of adequate assessment:* Because adolescents with early onset conduct problems will be experiencing multiple difficulties it is important that, when they come to official attention for these problems, they are provided with a thorough physical, psychosocial and educational assessment designed to identify the extent of these comorbid difficulties.

3. *The importance of evidence based treatment and intervention:* The identification of the comorbidities of conduct problems also requires the availability of evidence based treatment and interventions to address these problems. As shown in this brief review it is possible to identify a range of treatments including: a) medication (for ADHD, major depression and physical health problems); b) social learning and cognitive behavioural treatments (for ADHD; major depression; substance abuse); and c) remedial educational interventions. These findings imply the need for the multidisciplinary management of conduct problems, with this approach involving adolescent psychiatrists, psychologists, general practitioners, specialist teachers and social workers.

Chapter 4 Te ao Māori perspectives on adolescent conduct problems¹

4.1 Introduction

The evidence reviewed in chapters 2 and 3 focussed on issues relating to adolescent conduct problems from a Western Science perspective. This part of the report complements these chapters by providing a te ao Māori perspective on adolescent conduct problems and is based on a more extensive discussion of the te ao Māori perspective provided in our previous report on conduct problems in 8–12 year olds [3].

This part of the report focuses on the following issues:

- The importance of addressing issues of conduct problems for Māori and the need to draw from Western Science and te ao Māori perspectives.
- A brief review of Māori frameworks relevant to the understanding of conduct problems in adolescence.
- Māori perspectives on adolescent conduct problems.
- Comparison of the features of culturally appropriate and culturally responsive programmes.
- The key elements of kaupapa Māori programmes.
- A brief review of existing kaupapa Māori programmes for conduct problems in adolescence.

4.2 Conduct problems: Western Science and te ao Māori perspectives

It has been well documented that young Māori are at substantially increased risk of conduct problems and related antisocial behaviours. For example, official statistics show that young Māori are up to five times more at risk of being arrested for juvenile delinquency. Findings from the Christchurch Health and Development Study show that Māori adolescents are assessed as having conduct disorder and oppositional defiant disorders at rates which are over three times those for non-Māori. Similarly, Māori are at greater risk of being assessed with all of the conditions known to be comorbid with conduct problems: depression and suicidality (e.g. Marie, [191] Clark, [192]);

¹ This chapter was prepared for the AGCP by Professor Angus Hikairo Macfarlane, Professor of Māori Research, University of Canterbury.

substance use disorders (e.g. Marie, [193, 194]); educational underachievement (e.g. Marie, [191] Boaz, [195]); child abuse (e.g. Marie,[196] Fanslow, [197]) and physical health problems (e.g. Craig, [198]). Consequently, all interventions need to be robustly interrogated for their ability to achieve sustained, positive outcomes for rangatahi and whānau.

There have been on-going philosophical and epistemological debates about the origins of ethnic disparities in crime and related outcomes and the appropriate methodologies for reducing these disparities. In recent years, the debates have tended to polarise into two general philosophical perspectives. The first perspective takes the view that methodologies and programmes developed within a generic Western Science paradigm provide the best hope for addressing conduct problems experienced by young Māori. This perspective is reflected by the reviews and conclusions presented in Chapters 2 and 3 of this report. The second perspective is a kaupapa Māori model; one that insists that effective programmes for Māori must be grounded in Māori culture, tradition and values [10, 199]. As was pointed out earlier, the He Awa Whiria (braided rivers) approach developed in our previous report provides a general framework for integrating these diverse perspectives. The key elements of the He Awa Whiria model are:

- The Western Science and kaupapa Māori streams are acknowledged as distinctive approaches to the development and evaluation of programmes.
- The model enables knowledge from the kaupapa Māori stream to inform the development of Western Science programmes, and knowledge from Western Science programmes to inform the development of kaupapa Māori programmes.
- The model also enables the evaluation methodologies used in the Western Science stream to be applied by the kaupapa Māori stream and the evaluation methodologies used by kaupapa Māori research can be applied to the Western Science stream.
- Finally, the model assumes that the acceptance of programmes as being effective will rely on an acceptance of evidence from both streams.

In the kaupapa Māori stream of He Awa Whiria, research in context (the centrality of relevance) is fundamental to developing sound evidence bases. This requires central government to actively fund, commission, and draw from research that has been undertaken in settings that are meaningful to Māori. Such authentically derived research is reflective of the cultural realities, evidences and perspectives that are important to Māori. Research must comprise and echo Māori voice. To that end, smaller-scale research enquiries that are able to be replicated across cultural contexts are advocated. These studies need to be guided by research questions that are deemed important by, to

and for Māori, and also draw from evidences that emanate from practice interactions that are reflective of kaupapa Māori philosophy [200].

For both streams of He Awa Whiria, this chapter asserts the imperative of ensuring that all assessments and interventions intended for use with Māori are authenticated for cultural relevance, efficacy and effectiveness for rangatahi and whānau.

4.3 Te ao Māori frameworks relevant to the development of kaupapa Māori programmes

The kaupapa Māori programmes that will be introduced later in this section of the report are premised on landmark frameworks developed over the last three decades to assist in understanding te ao Māori perspectives in socio-psychological thinking and theorising. These frameworks include:

- *Te Whare Tapa Whā*: Developed by Dr Mason Durie in 1982, Te Whare Tapa Whā provides a Māori philosophy of health and wellbeing. This model is underpinned by four dimensions – te taha hinengaro (psychological health); te taha wairua (spiritual health); te taha tinana (physical health); and te taha whānau (family health).
- *Te Pae Māhutonga*: This is a more recent model developed by Durie [201] to bring together elements of Māori health promotion. The four central stars of the Southern Cross (te Pae Māhutonga) are used to represent the four key tasks of health promotion and named to reflect particular goals of health promotion: mauri ora and waiora (inner vitality, and the spiritual element that connects human wellness with external environments); toiora (healthy lifestyles); te oranga (participation in society). The two pointers are nga manukura (leadership) and te mana whakahaere (autonomy).
- *Te Whāriki*: This is the Ministry of Education early childhood curriculum policy statement [202]. The framework of Te Whāriki provides a sociocultural context for tamariki/children's early learning and development. It emphasises the learning partnership between kaiako/teachers, parents, and whānau/families. Kaiako/teachers weave a holistic curriculum in response to tamariki/children's learning and development in the early childhood setting and the wider context of the child's world. Many of the original conceptualisations that underpin the Te Whāriki curriculum were conceived by noted educators Tilly and Tamati Reedy [203].
- *Te Wheke*: Developed by Rose Pere [204], the concept of Te Wheke, the octopus, is used to describe family/whānau health. The head of the octopus represents te whānau, the eyes of the octopus represent waiora and each of the eight tentacles represent a specific dimension

of health. The dimensions are: wairuatanga (spirituality); hinengaro (the mind); taha tinana (physical wellbeing); whanaungatanga (extended family); te whānau (the family); waiora (total wellbeing for the individual and family); mauri (life force in people and objects); mana ake (unique identity of individuals and family); hā a koro ma, a kui ma (breath of life from forebears); whatumanawa (the open and healthy expression of emotion).

- *Puao-te-Ata-tū*: This is a 1986 report, arising from work led by John Rangihau, to advise government on approaches that meet the needs of Māori with regard to policy, planning and service delivery through the Department of Social Welfare. The report called for a “comprehensive approach” by central and local government, in conjunction with tribal authorities and the community at large to address the cultural, economic and social problems clearly evident in major cities and other identifiable areas.
- *He Māpuna te Tamaiti (the unique disposition of the child)*: This is a model of holistic human development and learning, initially developed by Grace [205] and then expanded [206]. In this model, cornerstone cultural constructs establish the context for positive interactions between students and teachers, students and students, and whānau members and the school. Essential to this framework is the uniqueness of each person, in terms of their mana (potential), their mauri (life essence), and their wairua (spirituality). These metaphysical constructs are said to have originated from ancient times and to have been passed down through whakapapa (genealogies). They are therefore classified as tapu (accessed only under careful restrictions) and must be treated with ultimate care and respect.

4.4 Māori perspectives on conduct problems

Against the background developed in the previous sections, a Māori view of the origins of and responses to adolescent conduct differs from that presented in the Western Science model.

The Māori view has been reviewed in Te Hohounga [10] which presented a model of the development of conduct problems from a kaupapa Māori perspective. Using the kōrero pūrākau of Ranginui and Papatuanuku (the primeval parents of Māori mythology) as a metaphor, Te Hohounga argues that the origins of conduct problems and raruraru (unsettledness) lie with the distress and consequences of separation (Te Wehenga). The report observes that “working with Māori who have conduct problems can be viewed as dealing with those tamariki and whānau where separation (from identity) is the greatest influential factor” p16).

From the basis of Te Wehenga, Te Hohounga [10] highlights the factors that have acted to increase the vulnerability of tamariki and whānau to the development of conduct problems. These factors

reflect the adverse consequences of colonisation on Māori culture, language and values. They include cultural disconnection and loss of identity, erosion of whānau wellness and the negative impacts of racism, discrimination and institutionalism. These factors are specific to Māori and differ from the “risk factors” that have been identified in western-based research as precursors of conduct problems. In writing on this issue, Durie, Cooper, Grennell, Snively and Tuaine [207] note:

“...current data suggest that whānau members face a disproportionate level of risk for adverse outcomes as seen in lower standards of health, poorer educational outcomes, marginalisation within society, intergenerational unemployment and increased rates of offending... In addition some studies have shown that even when social and economic circumstances are taken into account Māori individuals still fare worse than non-Māori... Whatever the explanation, “being Māori” introduces a risk factor that cannot be entirely accounted for by social or economic disadvantage” (p.15).

These considerations suggest that from a Māori perspective the explanation of higher rates of conduct problems being assessed amongst Māori cannot be found solely in conventional Western Science-based explanations. Rather, it is suggested that the explanations lie in factors specific to the history of Māori following colonisation and the adverse effects of these factors on whānau ora or wellbeing [208].

4.5 Culturally appropriate and culturally responsive programmes

A further important distinction is between programmes which are culturally appropriate and those which are culturally responsive [209]. Te Hohounga [10] notes the following key points for determining the cultural appropriateness of programmes (p.80) and components that enable a programme to be culturally responsive (p.94), and these are outlined in Table 4.1.

Table 4.1 Cultural appropriateness and responsiveness: A comparison.

Cultural appropriateness	Cultural responsiveness
Refers to programme selection and content, i.e. do programme values, format and content align with the cultural values and practice of the target group? Includes:	Refers to the delivery of the programme and the ability to respond to fluid, authentic situations in ways that resonate with (and are therefore culturally appropriate) <u>and</u> affirm the culture of clients. Includes:
Consultation with key groups in programme selection process	Māori leadership at a governance level
Assessment of programme content to determine	Major consultation on the content of the

accuracy	programme
Undertaking of culturally relevant client satisfaction surveys	Implementation of culturally relevant feedback
Statistical analysis of rates of participation	Ecological approaches to encourage engagement
Māori participation in planning of programmes	A focus on Māori concepts and values
Being able to demonstrate whānau inclusive principles such as whanaungatanga and manaakitanga	Māori processes and protocols such as pōwhiri and whakawhiti kōrero are integral to delivery
A holistic approach to intervention plans that addresses cultural, clinical and whānau needs	A whānau liaison worker, advocate, therapist are integral to whānau participation in the programme
An environment that aligns with enhancing identity and connections such as iconography and imagery	An environment that provides opportunities to enhance identity and connections such as marae or tūrangawaewae
A facilitator who has awareness and understanding of theory	A facilitator who can articulate and demonstrate the theory in practice

The remainder of this chapter will focus on the development of culturally responsive programmes that are founded on a by Māori for Māori (kaupapa Māori) framework.

4.6 Key elements of kaupapa Māori programmes

The key components that define programmes as “kaupapa Māori” programmes emanate from Māori worldview philosophies and perspectives, i.e. kaupapa Māori values, beliefs, and concepts, as well as Māori-preferred processes and practices. These components serve to “unite” them all as uniquely “Māori”, and ensure that there will be “cultural fit” for those to whom they are delivered [210-217]. These programmes are more likely to resonate with whānau as they draw upon the uniqueness of Māori culture, its ethos, and delivery mechanisms. The contention is that programmes must cover four fundamental areas if the service is to be sufficiently grounded so as to take on the form of kaupapa Māori.

- Tapu: This cultural marker is concerned with the sanctity of the person; the special attributes that people are born with and that contribute to defining one’s place in time, locality and society. Often the abuse of the sanctity of the tamaiti might be caused by the

erosion of Māori values, and tapu is often the corrective and coherent force that can reinstate wholeness and balance. Kaupapa Māori programmes value the sanctity of the tamaiti.

- Tikanga: This cultural marker is concerned with “the Māori way of doing things”. According to Mead [218] tikanga are tools of thought and understanding that are constituted to help organise behaviour and provide some predictability in how certain activities are carried out. Tikanga would include what Linda Smith identifies and explains as Māori ethics within practice [11].
- Taonga tuku iho: This cultural marker is concerned with the knowledge base of mātauranga Māori: ideas, interpretations, and modifications made through generations and applicable in today’s education conundrum. Space for Māori knowledge in curricular and programmes is at the centre, not at the margins.
- Tino rangatiratanga: This cultural marker is concerned with self-determination and is counter-hegemonic in the sense that curricular and programmes are expressed by Māori. Tino rangatiratanga is a dynamic construct in that it is about removing inhibitions and recognising the dignity of all who are involved in the exploration of good outcomes.

4.7 Identifying kaupapa Māori programmes for 12–17 year-olds

As part of the preparation for this report a stocktake was undertaken of existing services using a te ao Māori platform which had the potential to address conduct problems in Rangatahi. This stocktake was conducted using informal networks and existing reviews [199] to select the following types of programmes and frameworks:

- Programmes which explicitly respond to conduct problems or antisocial behaviours in 12–17 year-olds.
- Frameworks that enable practitioners to assess needs and plan kaupapa Māori responses to conduct problems in a consistent and comprehensive manner.

A review of the evidence on kaupapa Māori programmes for adolescents is given below.

Following the classification used in the previous report of 8–12 year-olds, adolescent kaupapa Māori programmes are presented as three stepping stones (poutama) representing the level of programme intensity. These levels range from tuatahi which represent the least intensive programmes through tuarua to tuatoru which represent the most intensive programmes. Programmes are further classified in terms of sustained or emerging programmes.

Sustained programmes have:

- been continued over a period of time
- met user expectations and received endorsement from Māori
- overcome constraints e.g. funding, availability of qualified staff) in the short-term at least
- accessed on-going support (e.g. training, quality assurance) from national or regional sources.

Emerging programmes are:

- recently developed and have gained initial support from local communities and whānau
- expanding and refining content, method and supporting resources
- yet to be reproduced in other sites or may be unique to local needs and opportunities
- seeking wider endorsement from Māori.

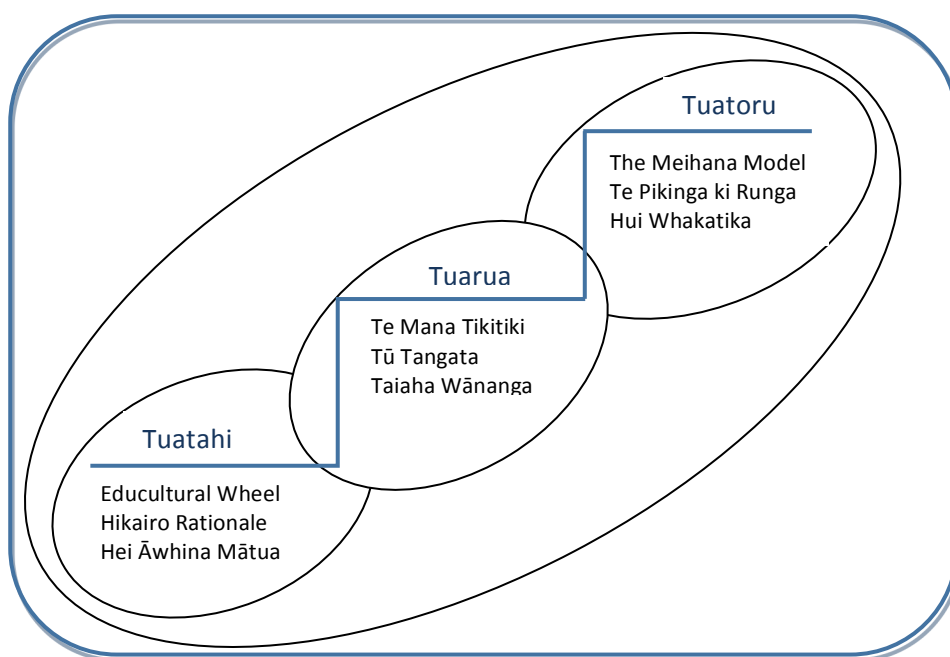


Figure 4-1 Ngā poutama e toru.

A kaupapa Māori view does not necessarily seek to classify and define programmes or intended clients, into distinct groups or types. There are differences - some programmes are more intensive than others, or might have been initiated by schools or by whānau, but differences tend to be more contextual rather than prescriptive. Figure 1 depicts this contextualised status of the programmes. While action for behavioural issues might have been initiated by a school, kaupapa Māori programmes will implicitly expect to engage with whānau, hapū and wider community agents. Overall, behavioural responses are seen as a continuum where the intensity of any specific intervention lifts in response to the needs that emerge in that particular context.

Table 4.2 Kaupapa Māori programmes.

Programmes	Places of connection			How knowledge is held/shared	Status:
	Whānau/ hapu/iwi/	Kaiako/ Kura	Tamaiti	Tuhituhi (text)	Sustained/ Emerging
<i>Poutama tuatahi</i>					
Hei Āwhina Mātua	✓	✓	✓	Glynn et al. [219]	S (1990s)
Educultural Wheel		✓	✓	Macfarlane [220]	E
Hikairo Rationale		✓	✓	Macfarlane [199]	E
<i>Poutama tuarua</i>					
Te Mana Tikitiki	✓	✓	✓	Carlson & Tongi [221]	S
Tū Tangata	✓	✓	✓	Murrow et al. [222] Moewaka Barnes & Barrett-Ohia [223]	S (1995)
Taiaha Wānanga	✓		✓	Workman [224]	S
<i>Poutama tuatoru</i>					
The Meihana Model	✓		✓	Pitama et al. [225]	S
Te Pikinga ki Runga	✓	✓	✓	Macfarlane, S. [226],	S
Te Hui Whakatika	✓	✓	✓	Hooper et al. [227]	E

Poutama tuatahi1) *Hei Āwhina Mātua*

Hei Āwhina Mātua was developed in the early 1990s by kaumātua, whānau, Kōhanga Reo kaiako, and staff and special educators in Tauranga. The programme focuses on the ways in which schools and communities can establish responsive learning environments that value and respect all students, and assist them to construct a positive view of themselves and their capacity to succeed. The Hei Āwhina Mātua process includes checklists being filled out by the teachers, whānau members and a group of the mature students from the school to identify what the problem behaviours are occurring, and when and where. Additionally, student achievement and participation (attendance,

stand downs, expulsions, Resource Teacher Learning and Behaviour (RTLB)/Special Education (SE) referrals) data are gathered across the school.

The checklists, observations, achievement and participation data are then analysed and feedback is given at a combined whānau and school community hui. A second hui, with facilitated professional development using specialised Hei Āwhina Mātua resources, is held to help both teachers and parents to be more effective in addressing the issues that have emerged. The process is repeated at an agreed time to check progress and determine further action.

2) *Educultural Wheel*

The Educultural Wheel [220] is a tool for practitioners, which sets out five key cultural concepts, showing their interconnections by presenting them as a wheel. At the hub of the wheel is the Pūmanawatanga (heart beat) which in this context means alive and dynamic, and conveys the morale, tone and pulse of the classroom or setting for the behavioural intervention. This hub or heart breathes life into the other four concepts:

- whanaungatanga (building relationships, possibly using hui whakatika (described below), involving whanau, community and learning co-operatively)
- manaakitanga (the ethic of caring, creating safe environments (e.g. classrooms) and being attentive to what is happening for individual students as well as the group)
- rangatiratanga (also ihi or assertiveness, teacher effectiveness, establishing mana and communicating their enthusiasm to tamariki)
- kotahitanga (the ethic of bonding, use of group agreements, group rewards, rituals, and belonging to a bigger context).

The premise of the Educultural Wheel is that infusing these five cultural concepts and strategies, when working with groups of tamariki, is likely to have a positive effect on client and practitioner, because cultural referents are employed. Acknowledging these cultural referents signals to Māori that their culture matters.

3) *Hikairo Rationale*

The Hikairo Rationale [199, 220] is a tool for practitioners and is appropriate for working with Māori and non-Māori, though its guiding values and metaphors come from a Māori worldview. It is named after a Ngāti Rangiwewehi Chief who achieved a peaceful solution to conflict between tribes through calm assurance and assertive dialogue and negotiation. The rationale comprises seven elements that overlap.

- Huakina mai (opening doors, avoiding polarised communication, seeking connection with whanau and involving them in discussions and decisions about their tamaiti).
- Ihi (being assertive, the ability to stand up for, and act in the best interests, of self or others, assertive communication as modelled by kaumatua and kaikorero in Māori protocols, mana used to bring about change).
- Kotahitanga (seeking collaboration and unity, linking people and achieving a sense of togetherness, home and school working together to create a healthy climate for the development of tamariki).
- Awhinatia (helping learners, using restorative practices (e.g. Hui Whakatika -see below), focus on consensus and reconciliation).
- I runga i te manaaki (caring that pervades, providing a socially and culturally safe environment, reciprocal respect, understanding and valuing of people).
- Rangatiratanga (motivating learners, using co-operative structures with inherent motivational aspects).
- Orangatanga (creating nurturing environments, enhancing the dignity of tamariki and practitioner, use of social bonds that draw positivity, enable the mauri (life force) of the tamaiti to be vibrant and confident).

Poutama tuarua

1) *Te Mana Tikitiki*

Te Mana Tikitiki is a joint venture between Ngāti Whātua and Ministry of Education, SE in Auckland City and involved consultation with people in various Ngāti Whātua and Ministry of Education roles. It can be described as a continuum of extra support to build healthy learning environments for tamariki and whānau. The continuum includes three specific elements. The first is a study support centre, a room (often a classroom) run by Ngāti Whātua with a behaviour support worker to assist children provided by SE. Second is the resilience net of systemic support which includes: home-school partnering; mentoring; teacher appropriateness; cultural appropriateness; positive role models. The third level is the Te Mana Tikitiki interactive programme. Entry to the interactive programme (for students who have been referred to the behavioural service) involves a process of school consultation, parental consent and negotiation for teaching space. The programme includes: tikanga o te marae; mauri toa; tikanga waka; life skills; arts; social skills, with an emphasis on Māoritanga and kōrero pūrākau. The interactive element is delivered by a team comprising SE staff (e.g. a behaviour support worker who manages face to face contact with tamariki) and a Māori service co-ordinator.

2) *Tū Tangata*

The Tū Tangata programme was developed in 1995 [222] by a small group of people led by Kara Puketapu, in response to issues that Parkway College in Wainuiomata was experiencing at that time. Tū Tangata means “standing tall”. The initial focus was on improving the education of Māori students and leaders such as Puketapu believed schools had become places of isolation, separating the student from their whānau and their community. The overarching goal of the Tū Tangata programme is to improve the education of young people, by bringing community people (parents/ whānau of students) into schools to work alongside the students, all day, every day in their classrooms, to increase students’ feelings of self-worth and to keep them at school and on task in their school work. It is expected that many of the students targeted for Tu Tangata will be Māori, however the programme aims to assist all students in the school as needed.

There are three elements to Tū Tangata when fully operational, however many schools use some or only one component:

- an education support person recruited from the community
- physical space (e.g. a classroom) as a Tū Tangata Centre
- computer software that tracks individual students.

In the last evaluation [222], 21 schools were operating the Tū Tangata programme and received funding through the Ministry of Education Innovations Funding Pool. The evaluation found that:

The programme is viewed positively by schools, and it is predominantly considered to be a successful programme. The areas in which it is most effective are in developing the links between home and school, improving the tone or climate of the school, and up-skilling members of the community through their role at the school.

3) *Taiaha Wānanga*

Taiaha Wānanga (also known as Mau Rākau) began in 1980 when Mita Mohi started taking groups of young Māori for a week of training in the art of taiaha (Māori long staff) which could be described as a form of indigenous martial arts [224]. The programme is intensive, operating for 16 hours a day for five and a half days (about 80 hours). By 1997, an estimated 20,000 young men had been through the programme, with participants as diverse as prison inmates and Rhodes scholars. As well as teaching taiaha skills, the wānanga immerses participants in tikanga Māori protocols and values, with tutors who model the desired attitudes and behaviours. The staff structure has four levels of tutors and opportunities for ongoing involvement for participants, to return as participants, and

eventually as tutors. The context is intensely communal as tamariki work together at a campsite to prepare food, eat, sleep and kōrero together. Workman's study points out the alignment of Taiaha Wānanga's philosophy with 1990s research on characteristics of effective rehabilitation programmes. He notes that the programme includes behavioural techniques (modelling desired behaviours, opportunities for practice, rewarding good behaviour), cognitive techniques, active teaching and addressing social behaviour. Workman argues from anecdotal data (and from supporting letters, for instance from a High Court judge) that the programme is highly effective.

Poutama tuatoru

1) *The Meihana Model*

The Meihana Model is an applied and peer reviewed framework developed by Pitama, Robertson, Cram, Gillies, Huria & Dallas-Katoa[225], particularly for the health sector but it is also used in the teaching context. It encompasses the four original Te Whare Tapa Whā cornerstones [228] and inserts two additional elements. The added dimensions are: Taiao (physical environment) and Iwi Katoa (societal context). These form a practice model (alongside Māori beliefs, values and experiences) to guide clinical assessment and intervention with Māori clients and whānau accessing mental health services. This model was developed in three phases over approximately 12 years. It has been in use since 2007. The Meihana model teaches practitioners to identify the whānau as the centre of the assessment and intervention processes. This ideology locates the identity of Māori within a collective. It challenges the practitioner to see an individual as part of a whānau and to explicitly engage with and utilise the whānau as part of assessment and intervention.

2) *Te Pikinga ki Runga*

Te Pikinga ki Runga [226] is an assessment, analysis, and programme planning framework, specifically intended to guide practitioners in their interactions when working with Māori tamariki and their whānau. The framework was originally developed to guide work with those exhibiting severe and challenging behaviours in education settings but is now also being implemented by education practitioners (including teachers) for Māori students who are exhibiting mild-to-moderate learning and / or behavioural challenges in education settings.

Te Pikinga ki Runga is guided by three fundamental human rights principles that sit at the very heart of our bicultural society in Aotearoa New Zealand within the Treaty of Waitangi. Cultural dimensions within behaviour management regularly pose challenges for professionals especially within the fundamental function of assessment. Te Pikinga ki Runga provides a practical tool to assist behavioural practitioners to convert the theory, of being culturally responsive, into practice. The Te

Huia grid, a key element of Te Pikinga ki Runga, steps practitioners through four domains (hohonga – relational aspects; hinengaro – psychological aspects; tinana – physical aspects; mana motuhake – self-concept, cultural identity) to be considered in planning a behavioural response, with a set of reflective questions to inform assessment, analysis and planning.

3) *Te Hui Whakatika*

Te Hui Whakatika [227] has been delivered in primary and secondary schools in the Waikato, Bay of Plenty and Canterbury areas. It is based on the traditional hui, or meeting held within Māori cultural protocols which can provide a supportive and culturally grounded space for seeking and achieving resolution, and restoring harmony. Hui Whakatika provides a unique process for restoring harmony from within legitimate Māori spaces. Underpinned by traditional or pre-European Māori concepts of discipline, Hui Whakatika provide a process that follows phases of engagement with the contemporary world while also adhering to four typical features of pre-European Māori discipline. These are:

- an emphasis upon reaching consensus through a process of collaborative decision-making
- a desired outcome of reconciliation and a settlement that is acceptable to all parties
- not to apportion blame but to examine the wider reason for the wrong
- less concern with whether or not there had been a breach of law and more concern with the restoration of harmony.

Te Hui Whakatika involves four distinct phases, preparing the groundwork, the hui proper, forming a plan and then follow-up and review at an agreed date. The hui phase includes key cultural processes that give mana and meaning to the event for participants.

4.8 Concluding comments

A range of different frameworks and approaches are proposed by particular theorists for use with adolescents. Havighurst [229] proposes eight developmental tasks which he defines as the time span progression from ages 12 to 18 years. Other theorists provide slightly different stages which may be shorter or longer but are generally not too far removed from the benchmark as defined by Havighurst. Conventional approaches to developmental psychology have adopted the practice of using 'categories' for bringing together pieces of information on a topic or life-span phase, and then chunking or clustering these into 'stages' of development. While these texts have made fine contributions to the discipline of psychology, their compartmentalised, seemingly fixed approach is often incompatible with a Māori worldview. A Māori philosophical approach to development begins

at Te Kore, when the world was a void, followed by Te Pō (the world of darkness), Te Ao Marama (the world of light) and Mauriora (the beginning of a person's life). A person then develops from being a pepi (baby) to a tamaiti (child); from a tamaiti to a rangatahi (youth); from rangatahi to pakeke (adult) and then on to a kaumātua (senior person); a process that is more relative and implicit rather than absolute and explicit. There is a body of research that has revealed evidence of impressive regularity across and between cultures in terms of human developmental occurrences. Conversely, some western science approaches to developmental psychology have been challenged by other scholars of note (for example, Donalson's perspectives on Piaget's theory of development). This chapter has discerningly focused on rangatahi within a prescribed 13 to 17 year age band; however Māori perspectives of human development have been applied across this range.

The intensity and focus of adolescent experience varies from culture to culture, depending on a variety of factors such as biology, socialisation, adolescent sub-culture, pathological emphases and society's attitude toward adolescents [230]. For Māori, the detrimental costs of urban drift during the 1950s and 1960s are now being profoundly felt, particularly in terms of cultural losses, group cohesion, displacement and the experiencing of identity and self-efficacy uncertainty. The media, in turn, continues to focus on negative statistical outcomes that are able to be attributed to Māori by perpetually drawing attention to the notion of the 'brown proletariat' being the dominating perpetrators of crime and antisocial behaviours, rather than ameliorating the contributing factors and impacts.

There is evidence of a wide variation in strategies and adaptations employed by professionals who are working with rangatahi and their whānau. Many of these variations have been outlined earlier in this chapter. Our previous report explains that while there has been a growing body of literature on the development of kaupapa Māori research, far less consideration has been given to the ways in which western science and kaupapa Māori research are able to be combined to produce consensual decisions about programme effectiveness. Our previous report sets out a conceptual model that attempts to integrate western science and kaupapa Māori models of programme development and evaluation. The model, based on the analogy of a braided river (*he awa whiria*) proposes that there are two main streams of evidence, respectively representing western science and kaupapa Māori models, both of which are interconnected by minor tributaries with the two streams ultimately reaching a point of convergence.

Successful development for rangatahi should involve an active and responsive individual in an active and responsive environment. The particular cultural context within which development takes place is not always a level playing field. Empirical evidence suggests that many rangatahi are often

disadvantaged in their educational achievements, and experience higher degrees of social, emotional and behavioural challenges than their non-Māori age-related counterparts. Other challenges beyond the control of rangatahi include the on-going lack of adequate resourcing of culturally relevant programmes, that are known to work, and the commonly held belief amongst conventional theorists that 'evidence-based' and 'effective' are synonymous terms [231].

On an optimistic note however, a pilot study completed in the Te Arawa rohe (region) by McRae, Macfarlane, Webber and Cookson-Cox [232] has shown that there are many rangatahi who are indeed succeeding at school and in the community. These young people demonstrate an ability to engage in high order thinking and meaningful dialogue so that they are motivated to learn and inspired to appreciate the personnel and programmes that are on offer in schools. Some excel at sport and most have developed a passion for their culture and heritage. This study has also shown that good teaching is often at the heart of the matter and that role models in and out of school, matter significantly. The rangatahi in this study clearly valued supportive school, home and community environments and reciprocated by way of resilience to adverse factors and the manifestation of acceptable behaviour. Me haere whakamua tātou – let us take collaborative steps forward.

Chapter 5 Implementing and evaluating programmes

5.1 Introduction

The aims of this chapter are to address a series of issues relating to the translation of the research evidence reviewed in Chapters 2, 3, and 4 to develop effective New Zealand policy for the prevention, treatment and management of conduct problems in adolescents. The views developed in this chapter are underwritten by two general themes that have pervaded the work of the AGCP.

These themes are:

1. *The need for evidence based policy and evaluation:* A major theme in the work of the AGCP has been the use of a Prevention Science approach to identify effective programmes (see Chapter 1). This approach requires the availability of evidence from studies using rigorous evaluation methods, usually randomised trials, to identify effective programmes. However while a review of the existing evidence may identify recommended or promising programmes, this review does not guarantee that the identified programmes will be effective in a New Zealand context since programme effectiveness may be determined by contextual factors that influence programme success. These factors include: the adequacy of staff training; the effectiveness of methods used to recruit the client population; organisational features which may facilitate or hinder programme implementation; cultural differences. For all of these reasons, the AGCP is strongly of the view that there is a need for rigorous evaluations of both newly introduced programmes and existing programmes in New Zealand. Without such evaluation it will not be possible to determine the extent to which investments into policies and programmes aimed at the prevention, treatment and management of antisocial behaviours in New Zealand adolescents are effective in reaching their objectives.
2. *The need to recognise te ao Māori perspectives:* As pointed out in Chapter 4 of this report, there have been growing concerns by Māori about what they see as the limitations of the Prevention Science Model and the need for policies and programmes in this area to be both appropriate and responsive to Māori and to be evaluated within a kaupapa Māori framework which builds upon and takes into account the world view of Māori. As we point out in Chapter 1, the emerging te ao Māori framework is not fully consistent with the Prevention Science model. This raises the complex issue of reconciling conclusions drawn from different epistemologies. In our

recent reports, the AGCP has adopted the He Awa Whiria (braided rivers) model developed by Professor Angus Hikairo Macfarlane [3]. Essentially, this model suggests that the most effective approach to policy development is to invest in both Prevention Science and kaupapa Māori perspectives and to examine the extent to which these perspectives can be complementary. An important implication of this view is that Māori should be involved at all stages in processes of programme and policy development, implementation and evaluation.

These two themes (the need for evidence based policy and evaluation; the need to recognise the te ao Māori perspectives) recur throughout the comments and recommendations made in this chapter of the report.

The comments, suggestions and recommendations in this chapter of the report focus on a series of topic areas including:

- Organisational issues relating to the assessment, treatment and management of adolescents with conduct problems and antisocial behaviour.
- Opportunities for developing evidence based policies within the existing service frameworks.
- Te ao Māori perspectives on service delivery.
- The importance of adequate evaluation of new policy investments.

5.2 Organisational issues

The available research evidence suggests that under ideal circumstances, the provision of services for adolescents with conduct problems should meet the following criteria.

- Assessments of conduct problems should be based on standardised and validated measures.
- These assessments should be accompanied by parallel assessment of the behavioural, educational, medical, psychiatric and other comorbidities of conduct problems.
- The assessment and management of adolescents with conduct problems should be overseen by multidisciplinary teams that include trained adolescent psychologists and/or psychiatrists who are able to provide informed clinical assessments.
- The treatment and management of conduct problems should be based on the provision of the evidence based programmes reviewed in this report.
- The process of assessment, decision-making and case management should be culturally appropriate and responsive.

- The introduction of new methods, approaches and programmes should be accompanied by a thorough evaluation to ensure that these are effective and culturally appropriate within the New Zealand context.

Currently, the management of conduct problems in New Zealand may involve up to four government agencies which approach these problems from different perspectives. These agencies are: the Special Education division of the Ministry of Education; Child and Adolescent Mental Health Services (CAMHS) administered by district health boards; Child Youth and Family (CYF) services (Care and Protection, and Youth Justice); and the Youth Aid Section of the New Zealand Police. The work of CYF Youth Justice services and Police is largely centred on addressing issues raised by those adolescents with conduct problems who come to official attention for juvenile offending.

The underlying philosophy of the treatment and management of conduct problems varies across agencies. Within the Health and Education sectors the assessment and treatment of conduct problems is largely managed by multidisciplinary teams that can include adolescent psychologists and psychiatrists. The work of Child Youth and Family (Care and Protection, and Youth Justice) is largely based around a social work model, with the Family Group Conference providing the major method for engaging the family in decision making and treatment planning. The service provided by Police is centred on a criminal justice model focussed around both the prevention and the reduction of recidivism. The organisational differences lead to differences in the ways in which young people with conduct problems are viewed and treated when they come to official attention. Some of the key differences include:

1. *Limitations on access to services:* Both the Ministry of Education and the Ministry of Health impose some restriction on the access to services for young people with conduct problems. The Special Education group of the Ministry of Education only provides services for young people up to and including their Year 10 of school, whereas the CAMHS do not provide treatments for conduct problems unless the young person has some other recognised mental disorder such as ADHD or major depression. These limitations mean that a substantial number of young people with conduct problems are unable to access the clinical services provided by these agencies. This is also a barrier for many young people in CYF care who are in need of clinical treatment for conduct problems.
2. *Variations in assessment methods:* While all agencies apply methods of assessment for young people, these methods vary widely between agencies. Special Education and CAMHS use professional assessments provided by trained psychologists and psychiatrists. CYF use professional assessments provided by trained social workers and psychologists and additional information

obtained to support the Family Group Conference process. The Police processes rely on information collected by Police using the YORST assessment tool. Additional information is collected by CYF Youth Justice services through the use of the TRAX information collection tool. Where a behavioural concern is identified through the TRAX tool, further clinical assessment by a trained psychologist may be requested.

3. *Variations in decision processes:* Parallel to variations in assessment processes, there are also variations in the decision processes about methods for managing and treating conduct problems. Within Special Education and CAMHS these decisions are largely made by trained clinicians in consultation with families. Within CYF (Care and Protection, and Youth Justice) decisions are made by trained social workers and clinicians (psychologists and paediatricians) in consultation with families on programme and treatments. These are discussed with the young person and their families in the Family Group Conference. While the family's views are central to this process, ultimate decision making sits with the social worker to protect the best interests of the young person.

4. *Limited use of evidence based services:* Despite the large infrastructure and investment in childhood conduct problems and juvenile delinquency, the use of the evidence based interventions reviewed in this report in New Zealand is limited. While some use has been made of evidence based programmes such as MST, Functional Family Therapy and Multidimensional Treatment Foster Care, the use of these services remains the exception rather than the rule. However, there is a growing agreement across government to adopt evidence based services. To a very large extent, the treatment of adolescent conduct problems in New Zealand (as elsewhere) rests on the use of services and programmes which have not been formally evaluated for their efficacy [2, 233].

5. *Responsiveness to Māori:* While some progress has been made, there are still few intervention services where work to ensure cultural appropriateness and responsiveness has been robustly implemented. All government agencies and NGOs who are delivering behavioural services to rangatahi Māori need to prioritise use of existing frameworks such as Te Pikinga ki Runga to increase safety and effectiveness for rangatahi and whānau. Implementation of such frameworks will address key service characteristics such as maintaining an ecological perspective and ensuring assessment tools derive from te ao Māori perspectives and therefore reflect the contextual and ecological realities of young Māori. Responsiveness also includes collaborative exchanges of information between participants in a process of reciprocal learning or ako. There is a continuing need to lift the cultural and clinical capacity/capability of all professionals working with whānau and conduct problems, and a particular need to increase the number of Māori professionals in this field.

6. *Limited evaluation:* Parallel to the lack of investment in evidence based services, there has been little investment in evaluating the effectiveness of existing practice. The Family Group Conference (FGC) provides an example of this issue. The FGC was introduced in New Zealand in the late 1980s, growing out of Māori cultural practices and spreading to many countries across the world. Despite the popularity of this approach, there is currently no evidence available about the extent to which this method improves outcomes for children and young people, although there is evidence that conferencing increases family participation in decision-making and satisfaction with decisions. There is a wider tendency for the majority of the services and interventions used to address adolescent conduct problems to lack well-designed evaluations of their effectiveness [233].

Collectively, these considerations suggest that New Zealand is currently a long way from having integrated and evidence based services for the prevention, treatment and management of conduct problems. Key reforms required in this area are:

- The development of unified and validated methods for assessing conduct problems in young people.
- The development of multi-disciplinary teams which include the expertise of clinicians, educationalists, social workers and representatives of the criminal justice system.
- Greater investment in the use of evidence based practice.
- Greater investment in evaluation of the efficacy of existing services.
- Continued investment in ensuring that systems are responsive to Māori culture and concerns.

Many of these could be initiated by redirecting existing funding and programmes without new funding, at least at first.

There are some indications of the recognition for the need for these changes within Government. For example:

1. *Gateway Assessment:* A promising approach to developing an integrated service provision methodology is provided by the Gateway Assessment [234], recently developed by Child Youth and Family. This approach involves an integrated assessment and decision making process that includes the Ministries of Education, Child Youth and Family and Health. This model appears to address all of the concerns expressed above relating to service integration and assessment. This model will be applied for: all children entering care and may be applied for all of those already in care and for children being referred to a Care and Protection FGC. Approximately half of children and young people referred to the Gateway Assessment are identified with emotional and/or behavioural

problems. The service purchase specifications to support treatment responses to children who receive Gateway Assessments and do not meet existing CAMHS guidelines for treatments, are explicit that the responses have to be evidence-based. This includes both via Primary Care Mental Health Services (e.g. Adolescent Triple P) or Intensive Clinical Support Services (MST and FFT). An evaluation of the pilot rollout of the Gateway Assessment was undertaken. Currently the Centre for Social Research and Evaluation (CSRE - MSD) is undertaking a full evaluation of the national rollout of the Gateway Assessments. It is clear the general principles underlying the Gateway Assessment provide the elements of a more integrated approach to providing services to children and young people with significant conduct problems.

2. *Youth Offending Teams:* Youth Offending Teams were established in 2002 to improve the operation of the youth justice systems by encouraging the four core agencies – Police, Child Youth and Family, Health, and Education – to talk to each other, identify local issues, and solve problems together. Currently there are 33 Youth Offending Teams situated throughout the country. The development of these teams appears to have been motivated by a growing appreciation of the importance of a multidisciplinary approach to managing adolescent conduct problems and crime. Two evaluations of the effectiveness of this approach in addressing issues have been undertaken to support improved practice and national consistency.

3. *The High and Complex Needs Unit (HCN):* The HCN was set up to provide support for implementing the High and Complex Needs Strategy [235]. The High and Complex Needs Strategy developed a framework for providing services to young people with high and complex needs. Eligibility for HCN includes consideration of the following questions:

- Is there a risk of harm to self or others?
- Is there an intensity of need in two or more agencies sustained for over 12 months?
- Is there unmet need in at least one sector?
- Is there a complexity of service responses required to address need?
- Are the needs beyond those you would expect normal services to meet?
- Are local services unable to respond in a timely way?
- Is the child or young person within HCN age range?

The Strategy aims to encourage local case collaboration between professionals, and joint service responses across agencies and services. The HCN Unit is a small interagency unit that supports staff and managers across health, disability, education and Child, Youth and Family to identify, plan and better meet children's needs when they are high and complex. The focus of the unit is to provide

tools, resources and information to support interagency working and, where necessary, funding for the purchase of additional services. No formal review of the effectiveness of HCN has been undertaken to date. In 2006, the School of Psychology, Massey University, assisted in identifying potential outcome measurement tools for clients receiving HCN funding. The Goal Attainment Scaling Tool was rolled out nationally by the HCN Unit in 2009.

These examples clearly suggest that within Government, there has been growing recognition of the importance of integrated models of service provision and evaluation but there has been much less investment in the uptake of evidence based services and in the evaluation of the effectiveness of innovation. The AGCP is strongly of the view that the present trends toward unified methods of service delivery and assessment should be encouraged but this should be accompanied by greater investments in the use of evidence based services and in the evaluation of the effectiveness of existing services to address the needs of adolescents coming to attention for conduct problems and antisocial behaviours.

5.3 Increasing the uptake of evidence based programmes

An informal review conducted by the AGCP of the use of evidence based services for addressing adolescent conduct problems in New Zealand suggested that, currently, relatively few of the evidence based services identified in Chapter 2 are used in New Zealand. The discussion below identifies a number of opportunities to extend existing services and provisions to increase the uptake of evidence based services for the treatment and management of adolescent conduct problems.

5.3.1 Extending Fresh Start to include further evidence based interventions

Fresh Start is an important recent policy development aimed at addressing serious offending. This initiative offers a number of new provisions targeted at young people who show serious and persistent offending. These provisions include:

- Expanding supervision with activity programmes by increasing the number of placements and providers to improve nationwide coverage.
- Increasing investment in programmes delivered by NGOs that provide mentoring, parent education and drug/alcohol treatment.
- Extending the supported bail initiative; increasing its reach across New Zealand.
- Working with the New Zealand Defence Force to deliver a Military-style Activity Camp (MAC) programme.

- Improving the assessment and early identification of high-risk offenders.
- Introducing electronic monitoring of curfew conditions as part of the new intensive supervision order, targeting repeat offenders and those who breach their community-based orders.
- Intensifying the supervision provided to young people by increasing the numbers of frontline youth justice staff.

Fresh Start also includes a number of initiatives aimed at helping children and young people at the lower end of offending, or at risk of getting into trouble. These include:

- Community youth programmes and structured programmes, such as community youth development programmes led by the Police.
- Court-supervised adventure camp activities or community-based youth development activities with mentoring.
- Innovation Fund, available for grass roots organisations to provide local solutions to local youth offending.

The extent to which the provisions of Fresh Start will be effective in addressing issues related to adolescent offending and conduct problems has been controversial, with on-going debate about the role of such features as the Military Style training component of the programme [55]. However, as the evaluation of Fresh Start by the Ministry of Social Development has not been completed, it was the view of the AGCP that it would be premature and misleading to comment on the efficacy of the Fresh Start at this stage.

Leaving aside the issue of whether or not the current provisions of Fresh Start are effective, the structure provided by the Fresh Start initiative provides multiple opportunities to include the evidence based programmes recommended in Chapter 2 of this report. Interventions which appear to be suitable for incorporation in the Fresh Start framework include: Teen Triple P; Multi-systemic Therapy; Functional Family Therapy; Multidimensional Treatment Foster Care; and Teaching Family Homes.

In addition, the Fresh Start framework provides an opportunity for incorporating evidence based interventions to address the comorbidities of conduct problems including ADHD; substance use disorders; depression; suicidality; risky sexual behaviours; educational underachievement; poor physical health and similar problems. The framework that underlies the development of Fresh Start can readily be adapted to incorporate a wide range of evidence based interventions into the policy.

Finally, the Fresh Start framework provides an ideal opportunity for unified protocol for providing psychological, social and physical assessments of the health and related needs of young people who come to official attention for youth offending and conduct problems. Currently the Fresh Start model uses the TRAX assessment system which is based upon the Risk-Need-Responsibility model for offender assessment developed by Andrews and Bonta [236]. While the theoretical basis of TRAX has been described by Dickie [237], no data on the validity and reliability of this instrument are currently available. TRAX provides a useful approach to assessing conduct problems and related issues for the social work context within which it was developed but it is unclear whether this method of assessment is compatible with other methods of assessment and particularly with standardised (DSM; ICD) assessments of conduct disorders and their comorbidities.

In summary, while the AGCP was of the view that the current provisions of the Fresh Start initiative may not be optimal at this time, the policy provides an important framework for both developing comprehensive methods for assessing conduct problems and including a range of evidence based interventions by young people who come to official attention by youth justice services for conduct problems.

5.3.2 Updating and extending the functions of the Family Group Conference

The Family Group Conference (FGC) has been described as the “lynch pin” of the New Zealand Youth Justice system. A recent Ministry of Justice publication summarises the advantages of this system as follows:

“Family Group Conferencing aims to involve the young offender, the victim and their families in the decision-making process with the objective of reaching a group-consensus on a 'just' outcome. In this way they reflect some aspects of centuries-old sanctioning and dispute resolution traditions of the Māori of New Zealand. They also encapsulate restorative justice ideologies, by including the victim in the decision-making process and encouraging the mediation of concerns between the victim, the offender and their families as a means to achieve reconciliation, restitution and rehabilitation.”

As noted in the earlier discussion of Restorative Justice (RJ) (see Chapter 2), the RJ functions of the FGC have many advantages in addressing conduct problems when compared with traditional criminal justice processes. However, the evidence on the extent to which the RJ approach is effective in reducing further conduct problems and addressing other adolescent issues is limited [44, 45]. The members of the AGCP were of the view that there is considerable evidence to support the use of the FGC as an important component of an approach addressing antisocial behaviours in adolescents. However, there are limitations around the current interface between the FGC, professional services

and evidence based treatment. More specifically, the family centred focus of the FGC does not explicitly require the use of professional assessments and evidence based interventions in the prevention, treatment and management of adolescent conduct problems. While the FGC effectively engages with the young person, their family and the victim, there is no guarantee that any of the participants in the FGC will be aware of: a) the extent of assessment required for young people with conduct problems; or b) the range of evidence based interventions available to address these problems.

All of these considerations support the importance of retaining the FGC as the lynch pin of the juvenile justice system while at the same time updating the structure and functioning of the FGC to ensure that: a) all young people attending an FGC undergo a thorough psychological assessment prior to the FGC; and b) expert advice is presented at the FGC about the range of issues facing the young person and the range of evidence based services that are available to address these issues. This approach would strengthen the current FGC system by supplementing the restorative justice approach which underlies the FGC with access to professional advice about the issues faced by the young person and the range of evidence based approaches available to address these issues.

It has been suggested to the AGCP that many FGCs, in fact, do involve professional assessments and advice. If this is so, the proposals above will largely involve the formalisation of existing arrangements to ensure that: a) all young people participating in an FGC are given a thorough professional assessment prior to the conference, and b) professional advice is available at the conferences to inform participants about the range of issues faced by the young person and the various evidence based prevention/ treatment/ management options to address these issues.

5.3.3 Increasing service provision in the Education Sector

The Ministry of Education has made substantial contributions to the development of evidence based treatments of conduct problems. These steps include:

- The training of all educational psychologists in functional assessment.
- Obtaining funding for the Positive Behaviour for Learning suite of initiatives.
- The introduction of the Incredible Years Parent Programme.
- Funding an evaluation of three Incredible Years parent training cohorts.
- The development of the Incredible Years Teacher Training Programme.
- The introduction of School Wide Positive Behaviour Support into 400 schools and work on setting up an evaluation of these.
- The development of the Intensive Behaviour Services.

The groundwork laid by the Ministry provides a basis for the further inclusion of evidence based programmes into the general PB4L framework. Programmes which appear well suited to the educational context include: School-Wide Positive Behaviour Support; Prevent-Teach-Reinforce; Check and Connect; and the Group Contingency Management Programmes reviewed in Appendix 1. All of these interventions provide opportunities for the educational sector to extend its current investment in evidence based prevention programmes to the adolescent population.

5.3.4 Reducing rates of stand-downs, suspensions, exclusions and expulsions

Within the Education sector a relatively common response to antisocial behaviour by students is to apply various sanctions that exclude the young person from school. Several different approaches may be taken. These are:

- *Stand-downs*: removal for a specified period of no more than 5 days at one time, and no more than 10 days per school year. More than 20,000 stand-downs were recorded in 2009 [238].
- *Suspensions*: removal for an unspecified period until Board of Trustees can meet (formal meeting must be held within 7 days) and decide on action (i.e., remove the suspension [with or without conditions], extend the suspension, or exclude or expel the student). More than 4,000 suspensions were recorded in 2009 [238].
- *Exclusions*: students under the age of 16 are removed from school and required to enrol elsewhere. The average age for an exclusion is 13.5 years, but can range as low as 6 years. Average time before enrolment in another school is 50.4 days (about one school term). The costs of the procedures to exclude a child are 41% greater than the costs of keeping the child in school [239]. There were 1,364 children/youth excluded in 2008.
- *Early Leaving Exemptions*: it has been considered that schools can also encourage students to apply for an Early Leaving Exemption in order to avoid exclusion. In 2010, 484 Early Leaving Exemptions were applied for and 416 were approved [240].
- *Expulsions*: students over the age of 16 are removed from school. These students do not need to re-enrol, but they may choose to do so.

As New Zealand Ministry of Education does not formally identify conduct problems, there is no actual statistic on the number of children and youth with conduct problems who are stood-down, suspended, excluded or expelled. The most common reasons reported for stand-downs, suspensions, exclusions and expulsions is “continual disobedience” (41%), followed by “physical assault on other student or dangerous behaviour” (34%) suggesting there is a significant overlap

between the behaviours associated with conduct problems and the behaviours justifying stand-downs, suspensions, exclusions and expulsions. Also, children and youth who are Māori (63% more likely) or Pacific Island (32% more likely), children/youth who are male, and children and youth from the lowest decile schools are far more likely to be stood-down, suspended, excluded or expelled: similar to differences in reported prevalence of conduct disorders.

In addition to those who are removed from school and those who apply for a legal exemption to continue at school, there is another group of students who do not attend – those who have disengaged from the education system and simply miss school through absences, truancy, and dropping out. These are students who either legally or illegally have stopped attending school. The actual numbers here are not known but could be up to as many as 2000 at any one time.

While suspensions, stand downs, exclusions and expulsions are widely used in the New Zealand Education system as a response to conduct problems, there is no evidence to suggest that these measures are effective in reducing antisocial behaviours in young people. In fact, the opposite is the case. Removal from school deprives those students of their education which, in turn, potentially results in the limitation of the life chances of those students academically, socially, vocationally and emotionally. In addition, overseas study has shown that children who are likely to be suspended have lower achievement than children who are not suspended, and, that following on after suspension, they are likely to fall further and further behind academically. "Suspensions increase the academic, social, and emotional gap between students and their schools. Worst of all, suspensions were employed most with students who could least make up the distance between their status and what was expected of them—those with the lowest achievement." (p.368) [241].

Overseas studies also indicate that, following suspension occurring between year 6 and year 9 (the more than 100,000 students in this study mostly had multiple suspensions, increasing the mean length with each year in school), students are more likely to drop out as compared to students with similar characteristics who were not suspended, and the likelihood increased with the total number of days suspended [241]. Another study reported no significant relationship between severity of school disciplinary procedures and subsequent offending [242], and an Australian/USA study reported that suspensions increased the likelihood of antisocial behaviour after controlling for prior risk factors, including antisocial behaviour prior to suspension [243]. There appears to be no empirical evidence that these strategies reduce conduct problems or improve behaviour in children/youth in New Zealand, and the children/youth most likely to leave school early have characteristics which overlap with the characteristics/risk factors associated with conduct problems, including dysfunctional families, low achievement, disruptive behaviours, and truancy [244].

All of these considerations suggest the importance of developing new policy approaches which minimise the use of exclusionary methods and substitute these with more effective methods for managing antisocial behaviours in young people.

Boards of Trustees have a legal requirement to provide “guidance and counselling” “where appropriate”, to monitor the child’s progress, and to consult with the parents [239]. There is no evidence that these requirements are followed, or that they are effective, but the requirement provides a distinct opportunity for incorporating/implementing one or more of the recommended practices from Chapter 2 of this report into school policies, either prior to, at the point of, or during the suspension. Implementing the recommended practice is much more likely to provide an effective change than the current procedures. In addition, the Ministry of Education recommends that schools adopt “evidence-based” practices as part of their proactive procedures for behaviour management [245], and incorporating a recommended practice from Chapter 2 would ensure compliance with that policy recommendation.

The need to maintain children and young people in the education system is clear. Failure to do so is likely to increase the chances of educational under-achievement, social mal-adjustment and criminal offending. In addition, all reliable research points clearly to the fact that the treatment of those with conduct problems is almost always more effective in regular environments. All of these issues highlight the importance of New Zealand investing in policies that both reduce the rate of school exclusions and increase the fraction of young people with conduct problems who refer to evidence based assessments and services.

5.3.5 Increasing service provision within the Health Sector

Within the Health Sector, young people with conduct problems are treated by the Child and Adolescent Mental Health Services (CAMHS) provided by the District Health Boards (DHBs). Until recently, the treatment provided by CAMHS for conduct problems has been limited by a Ministry of Health requirement that CAMHS could only treat conduct problems (Conduct Disorder; Oppositional Defiant Disorder) if these problems were comorbid with some other mental disorder. The importance of providing adequate treatment for conduct disorders in adolescents is heightened by the fact that these disorders are amongst the strongest precursors of a wide range of later mental health problems including: antisocial personality disorder; substance abuse and dependence; depression and anxiety disorders; suicidal thoughts and behaviours [72, 246, 247]. It may be conjectured that effective treatment of conduct disorders in childhood and adolescence plays an important role in the prevention of future mental disorders. For all of these reasons it is important to make investments in increasing the capacity of the CAMHS services to deliver evidence based

interventions for the treatment and management of adolescent conduct problems including Conduct Disorder and Oppositional Defiant Disorder.

In addition to extending the range of services provided by CAMHS, there are also opportunities for aligning treatment and assessment methods across CAMHS by the use of integrated manualised approaches. As discussed in Chapter 3 MATCH-ADTC is a resource that synthesises knowledge about the evidence based treatment of childhood anxiety, depression, trauma, and conduct problems. The program combines 33 procedures – drawn from the most successful evidence based treatments – into a single, flexible system. Comprehensive flowcharts guide the process of care, streamlining treatment to fit the child's needs. It may be suggested that the implementation of MATCH-ADTC across DHBs will improve the quality and consistency of services addressing conduct problems in adolescence and the comorbidities of these problems.

5.3.6 Increasing the capacity of Non-Government Organisations (NGOs) to deliver evidence based programmes

A large amount of Government investment into preventing, treating and managing adolescent conduct problems is given to the NGO sector which provides a wide range of programmes and services. Relatively few of the programmes and services are evidence based or have been rigorously evaluated. Given the increasing availability of evidence based manualised programmes for the treatment and management of adolescent conduct problems, there is a clear need to encourage the development of evidence based services within the NGO sector. This may be best achieved by a policy of both increasing investment in evidence based services and requiring that NGOs seeking funding for programmes directed at adolescent conduct problems produce sound evidence of the efficacy of their programme(s). Here it must be stressed that the AGCP was of the view that the introduction of this policy needs to be conducted gradually and thoughtfully to avoid the disruption of existing services and to provide the NGO sector with time to build up expertise in the development, implementation and evaluation of evidence based programmes.

5.3.7 Investing in training

All of the preceding recommendations require, in one way or another, the increased availability of staff who have the training and skills to deliver evidence based interventions for the treatment and management of conduct problems. These staff include: trained child and adolescent psychologists and psychiatrists; social workers; teachers and therapists. While it proves theoretically possible to outline a number of effective treatments for adolescent conduct problems, translating these possibilities into effective and well-functioning programmes requires a trained work force with a

thorough grounding in the principles of implementing and evaluating evidence based programmes for adolescents with conduct problems. For these reasons it is important that Government undertakes a review of the need for trained staff in this and related areas and develops a long term training policy.

5.4 Issues for Māori, Pacific and other populations

Earlier sections of this chapter note a number of inconsistencies and omissions when reviewing the overall picture of New Zealand's response to adolescents who present with challenging behaviour. However, the most notable inconsistency is the lack of coherence between the proportion of Māori and Pasifika adolescents presenting with challenging behaviour and the proportion of sustained investment in effective Māori and Pasifika responses. While this pattern of over-representation in referrals and under-representation in funding of programmes and evaluations to build an evidence base continues, it is unlikely that conduct problems within these groups will decline. As has been noted previously, various kaupapa Māori responses have received limited funding over short time frames, but to date there has been no sustained funding of programme development and evaluation to enable growth of a relevant evidence base. This evidence base requires replicated research enquiries in culturally relevant contexts for Māori, where Māori voice is the majority.

Examples of three under-funded but promising kaupapa Māori programmes are: Te Hui Whakatika, Hei Āwhina Mātua and Te Mana Tikitiki (described in Section 4.7). In 2011, the Ministry of Education commissioned small evaluations of these three kaupapa Māori behaviour programmes as part of its Positive Behaviour for Learning initiative. All three programmes showed evidence of effectiveness and all three faced a lack of funding to either keep the programme running or develop the programme, and evidence of effectiveness, further [221, 248, 249]. Meyer (Professor of Education, University of Victoria) led the evaluations of Te Hui Whakatika and Hei Āwhina Mātua and, with input from leading Māori researchers, recommended to the Ministry of Education that the components of two of these programmes be joined into a comprehensive kaupapa Māori severe behaviour intervention framework for schools. The Ministry of Education has taken action on the recommendation and work on a comprehensive kaupapa Māori severe behaviour intervention for schools (named Huakina Mai) is being undertaken by a University of Canterbury research team. The intended framework will include a school-wide model of Huakina Mai for strength-based behavioural intervention for Māori, and a professional development plan for school staff.

High rates of school suspensions, exclusions and expulsions for Māori are noted earlier in this chapter (see Section 5.3.3). A key outcome sought through the Huakina Mai project is a reduction in

these rates and an emphasis on inclusion. More broadly, it is hoped that this project will signal the beginning of an era where the glaring inconsistency of over-representation of Māori in the client group and under-representation in the funding of a Māori response, is addressed.

5.5 Concluding comments and recommendations

While it is clear there has been a growing commitment to the development of evidence based approaches to the treatment and management of adolescent conduct problems in New Zealand, it is clear that there is a need for further development. The AGCP has identified a number of ways in which the transition to evidence based practice can be accelerated.

Organisational Issues and Assessment

Recommendation 1: There is a need for greater interagency collaboration to ensure greater consistency in:

- Methods for assessing conduct problems and their comorbidities
- The use of evidence based interventions
- The evaluation of programmes and interventions
- The development of culturally appropriate and culturally responsive programmes.

Recommendation 2: The AGCP recommends that the Ministries of Health, Education and Social Development collaborate to agree upon a common terminology to refer to: a) early onset antisocial development; and b) adolescent onset conduct problems, and further collaborate to ensure that this distinction is built into the diagnostic procedures used on entry to all CAMHS, Special Education and CYF services for young people with conduct problems.

Recommendation 3: The Ministries of Health and Education should consider developing standardised methods of assessment for teachers and social workers to use in the identification of children and adolescents in need of specialist assistance for antisocial behaviour problems.

Recommendation 4: The AGCP recommends development of a memorandum of understanding regarding which evidence based treatment programmes are going to be the primary responsibility of: a) Child and Adolescent Mental Health; b) Special Education; and c) Child Youth and Family services.

Recommendation 5: Consideration should be given to strengthening the membership of Family Group Conferences to require the inclusion of trained clinicians (psychiatrists; psychologists) to

provide the client family with information about the young person's clinical condition and the evidence based treatments that are currently available.

Recommendation 6: The Ministry of Education should extend the services provided by Special Education to include all young people at school.

Recommendation 7: The AGCP recommends that The Ministry of Health abolish the requirement that CAMHS only treat conduct problems if these are comorbid with some other recognised mental disorder. This is a high priority development given that CAMH services are the best equipped to treat the disorders such as substance abuse, depression, anxiety problems, and suicidal behaviours which co-occur with conduct problems.

Service Provision

Recommendation 8: The Ministries of Education, Health, and Social Development should review their current investments in services and programmes provided by NGOs to:

- Identify the number of programmes that are supported by evidence.
- Evaluate the effectiveness and cost effectiveness of publicly funded NGO programmes.
- Enter into collaborative partnerships with NGOs to encourage the use of evidence based programmes and evaluations of existing programmes.

Recommendation 9: The Ministries of Education, Health, and Social Development should consider reviewing their current programmes and policies targeted at adolescents to determine the extent to which the evidence based programmes recommended in Chapter 2 of this report can be incorporated into current practice. These programmes include:

- Multi-systemic Therapy
- Functional Family Therapy
- Multidimensional Treatment Foster Care
- Teaching Family Homes
- Aggression Replacement Training
- Teen Triple P
- School Wide Behaviour Support
- Prevent-Teach-Reinforce
- Adolescent Transitions Programmes
- Check and Connect
- Group Contingency Management Programmes

These programmes cover a wide range of settings (school, home, residential) and address adolescent conduct problems from mild to severe. They appear to be suitable for use by both Government agencies and NGOs depending on the adolescent population being addressed. A number of specific proposals are made in Recommendations 11 to 16.

Recommendation 10: The AGCP strongly recommends that MSD considers the trialling and evaluation of Teaching Family Homes as an alternative to the services currently being provided by CYF residential services.

Recommendation 11: The AGCP strongly recommends that MSD develop a programme of work to pilot and evaluate the cost effectiveness of a Multidimensional Treatment Foster Care programme in New Zealand as an alternative to existing foster care services for children with antisocial behaviour problems.

Recommendation 12: The AGCP strongly recommends that the Fresh Start initiative should be extended to include well validated evidence based programmes, including:

- Multi-systemic Therapy
- Functional Family Therapy
- Multidimensional Treatment Foster Care
- Teaching Family Homes
- Teen Triple P

Recommendation 13: The AGCP recommends that Prevent-Teach-Reinforce be added to the PB4L programme of work, that this intervention programme be piloted in a representative sample of schools and that the outcomes of these pilots be carefully evaluated.

Recommendation 14: The Ministry of Education should develop evidence based policies, strategies and methods to reduce the number of young people who are excluded from school as a result of stand-downs, suspensions and exclusions because of antisocial behaviours.

Recommendation 15: The Ministries of Education and Health consider introducing, implementing and evaluating the MATCH-ADTC model as a method for Child and Adolescent Mental Health Services to provide more consistent and evidence based treatment of adolescent conduct problems and their comorbidities.

Training Issues

Recommendation 16: The Ministries of Education, Health and Social Development should consider the training and work force requirements for implementing the programmes described in Chapter 2 of the report. The implementation of these programmes is likely to require increased numbers of adolescent psychiatrists and psychologists; social workers with mental health training; and therapists.

Recommendation 17: The AGCP recommends that Resource Teachers of Learning and Behaviour be provided with training in: a) the assessment of behaviour disorders; b) evidence based methods for treating these disorders.

Recommendation 18: The AGCP recommends that the New Zealand Teachers Council Graduating Teacher Standards be amended to require all new teachers to be trained in: a) the development and assessment of antisocial behaviours; b) evidence based classroom and individual behaviour management procedures.

Recommendation 19: The AGCP recommends that CYF develop and implement training for foster parents using evidence based programmes. Excellent models of foster parent training are provided by both the Teaching Family Homes certification programmes and the Multidimensional Treatment Foster Care certification programmes.

Recommendation 20: The AGCP recommends that the Ministries of Health, Education and Social Development promote the use of regular forums to acquaint front line staff with evidence based methods for the assessment, treatment and management of young people with conduct problems. These meetings could be modelled on the highly successful Taumata Whanonga held by the Ministry of Education in 2009.

Recommendation 21: The AGCP recommends that the Core Competence Standards of the Social Workers Registration Board be amended to provide all new social workers with training in: a) the development and assessment of antisocial behaviours; b) evidence based behaviour management procedures.

Evaluation

Recommendation 22: The AGCP recommends that the Ministries of Health, Education and Social Development should collaborate to establish a single cross-agency “Programme Evaluation Centre” with the following responsibilities:

- Evaluating the fidelity with which new programmes to treat conduct disorder are being delivered.
- Collecting data regarding the effectiveness of evidence based programmes in halting and reversing antisocial development.
- Identifying barriers to treatment and ways in which these can be overcome.
- Informing future developments in the transition to more cost effective, evidence based treatments for antisocial development in children and youth in New Zealand.

Recommendation 23: The Ministries of Health, Education and Social Development consider the extent to which existing databases can be updated to provide comprehensive and consistent information on the treatment outcomes of clients referred to their services for antisocial behaviours.

Recommendation 24: The AGCP recommends that the Ministries of Education, Health and Social Development collaborate to develop data sharing procedures and protocols so that the assessment and evaluation data which is being collected regarding: a) individual children and youth; and b) particular programme implementations, can be shared and readily compared across CAMH, Special Education and CYF services.

Recommendation 25: The AGCP recommends that, during the transition to evidence based practice, the Ministries of Health, Education and Social Development seek out opportunities for controlled research designed to develop our understanding of: a) barriers to implementation and b) factors resulting in treatment failure in the New Zealand context.

Māori imperatives

Recommendation 26: The AGCP recommends that, in order to meet its Treaty obligations, Government establish an on-going funding stream within the Whānau Ora programme to provide for suitably qualified Māori psychologists and social workers to develop and evaluate kaupapa Māori programmes designed specifically for Māori rangatahi who are engaging in elevated rates of antisocial behaviour, risky behaviour, and/or offending.

Recommendation 27: Programme relevance. Given the disproportionately high representation of rangatahi Māori in antisocial behaviour referrals, Western Science evidence-based programmes and standardised assessments used with rangatahi must be authenticated for their:

- Cultural relevance and cultural safety.
- Efficacy for rangatahi and whānau.

- Effectiveness: the ability to demonstrate sustained outcomes.
- Alignment to te ao Māori and ecological perspectives.

Recommendation 28: Address issues of equity. Government agency policy advisors and decision-makers need to address equity issues when allocating funding and resources that respond to conduct problems in Aotearoa New Zealand, by:

- Equitably funding kaupapa Māori programmes to a level commensurate with the rates of risk for conduct problems in the Māori adolescent population.
- Equitably funding robust evaluations of kaupapa Māori programmes so that a culturally relevant evidence base can be established.
- Including kaupapa Māori programmes in the range of services offered by Child and Adolescent Mental Health Services.
- Equitably funding small scale, replicated research enquiries in culturally relevant contexts for Māori, where Māori voice is the majority.

Recommendation 29: Collaborative interagency approaches. Work collaboratively across government and NGOs to strengthen te ao Māori responses to conduct problems and support development of the evidence base. Use collaborative engagement such as wānanga to support current work being undertaken by the Ministries of Education, Health and Social Development regarding development of kaupapa Māori programmes (Huakina Mai) and enhancement of western science-based programmes (Positive Behaviour For Learning: School-wide).

Recommendation 30: Maintain an ecological perspective. All programmes delivered to Māori should maintain a focus on support to whānau and wider contexts such as schools and communities rather than an individual's conduct problem becoming the treatment focus. Effective programmes are not only concerned with high quality technical processes in the delivery of services; they also require a high level of responsiveness to the contexts within which rangatahi live. This includes collaborative exchanges of information between participants in a process of reciprocal learning or ako.

Recommendation 31: Culturally responsive assessment. Work to ensure assessment approaches for use with rangatahi derive from te ao Māori perspectives and therefore reflect the contextual and ecological realities associated with cultural loss, group membership, self-efficacy and cultural identity.

Recommendation 32: Training and professional development. Lift the cultural and clinical capacity/capability of professionals working with whānau and conduct problems to:

- Increase the te ao Māori content and cultural competency content of training for all professionals, including through working with Te Rau Matatini.
- Ensure qualifications in te ao Māori behavioural psychology and social work are offered and career options established.
- Ensure mainstream training of Psychologists and Resource Teachers Learning and Behaviour includes comprehensive and culturally relevant evidence-based content so as to enhance understanding of te ao Māori and effective responses to conduct problems.
- Enlarge the Māori research workforce by increasing the funding of and training for Māori psychologists, therapists and researchers.

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Appendix 1 Effective Interventions for 13- to 17-Year Old Youth with Life Course Persistent Conduct Problems

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Introduction

Teenagers who engage in elevated rates of antisocial behaviour have been variously referred to as "delinquents", "juvenile offenders", "conduct disordered youth", "antisocial youth", and so on. Attempts to develop interventions which will be effective in changing the behaviour and the attitudes of antisocial youth have a long and extensive research history and any attempt to review this research literature quickly reveals that there are many hundreds of research reports to review (Litschge, Vaughn & McCrea, 2009).

In order to conclude that a particular therapeutic intervention is effective in reducing antisocial behaviour, that intervention must undergo a number of evaluations and those evaluations must meet certain scientific standards. These include the selection of valid and reliable outcome measures, the monitoring of outcomes for an appropriate length of time, and the use of evaluation designs which permit valid conclusions to be drawn (Chambless & Hollon, 1998; Kratochwill & Stoiber, 2002; Kratochwill et al., 2010; Horner et al., 2005).

The selection of valid outcome measures. Assuming that the aim of interventions for antisocial adolescents is to halt and reverse the antisocial development which has been occurring prior to adolescence, it follows that the evaluation outcomes which are most relevant are those which distinguish between normal and antisocial development during the teenage years. Some of the outcomes which are important during the second decade of life have been listed by Church (2003) and are reproduced in Table 1.

The selection of reliable measurement procedures. Once an appropriate outcome has been selected, a procedure must be devised for measuring it with reasonable accuracy (Chambless & Hollon, 1998; Durlak, 2002). This is relatively easy in the case of school achievement, arrest rates and so on, where reliable measures exist already, but much more difficult in the case of friendships, employment history, leisure activities, undetected

offending and so on which must be gathered by means of less reliable measures such as self-reports.

Outcomes need to be monitored for an adequate length of time. It is clear from Table 1 that many of the outcomes which are of greatest interest in the second decade of life are outcomes which cannot be measured immediately following the completion of treatment. They are outcomes which the adolescent needs to achieve during the coming years. It follows that the most appropriate way to evaluate the effectiveness of interventions for antisocial teenagers is to continue to measure important treatment outcomes for several years following completion of the treatment programme (Chambless & Hollon, 1998).

Table 1
Behaviours and achievements (outcomes) which distinguish normally developing adolescents from adolescents with persistent conduct problems

<i>Major outcomes which need to be achieved during the teenage years</i>	<i>Major adverse outcomes which need to be avoided during the teenage years</i>
Maintenance of family relationships	Rejection by parents
A functional level of literacy	Non-functional levels of literacy
Completion of school	Exclusion from school
School qualifications sufficient to ensure employment	Failure to achieve qualifications necessary for employment
Friendships/relationships with normally developing peers	Exclusion from normal peer groups and/or selection into deviant peer group
A level of social development sufficient to hold down a job, to establish and maintain intimate relationships, and avoid high risk behaviours	Dangerous driving
Effective fertility control	Hard drug use and polydrug use
Stable employment or tertiary study	Criminal activity, arrest, imprisonment
A sense of identity and self-esteem	Premature fatherhood or pregnancy
	Repeated terminations of employment
	Feelings of worthlessness/depression

Appropriate evaluation designs must be used. Evaluation involves assessment against some standard. The effects of human services are most commonly evaluated against the effects of not providing the service (the "no treatment" or "business as usual" controls). There are well established conventions for the design of this kind of evaluation. Where between groups designs are used, there must be a sufficient number of youth (at least 30) in both the treatment and the control groups (the *sample size* criterion), the youth who are to be the participants must have an equal chance of ending up in either the treatment group or the control group (the *random assignment* criterion), and implementation of the treatment programme must be monitored in sufficient detail for it to be accurately described in the evaluation report (the *procedural reliability* criterion) (e.g. Lewis-Snyder, Stoiber, & Kratochwill, 2002). Where single case experimental designs are used, both the baseline measures and the treatment measures must run for a period of time sufficient to reveal treatment effects, implementation of the treatment must be monitored in sufficient detail for it to be accurately described, and treatment effects must be shown to be reproducible from one case to the next (e.g. Shernoff & Kratochwill, 2002).

Finally, there must be more than just a single demonstration of effectiveness. Current conventions allow this criterion to be met in either of two ways.

- (a) Following the APA Clinical Child Psychology guideline (Lonigan, Elbert & Johnson, 1998), the reviews which follow identify as evidence-based any manualised intervention which has been shown to have a positive and reproducible effect in reducing conduct problems in 13-17 year old youth in at least two well controlled, randomised between-groups evaluations undertaken by at least two different research teams.
- (b) Following the What Works Clearinghouse guideline (Kratochwill et al., 2010) the reviews which follow identify as evidence-based any manualised intervention which has been shown to have a positive and reproducible effect in reducing conduct problems in at least five well controlled within-subject or within-group experiments undertaken by at least three different research teams.

Reviews of the relative effectiveness of the many types of treatment programmes developed for antisocial youth tend to arrive at a fairly consistent conclusion and that is that most of the treatment programmes currently received by antisocial adolescents have very little long term effect. In Lipsey's (1992) meta-analysis of 443 published and unpublished evaluations of treatment programmes for delinquent youth the overall weighted effect size on recidivism across all types of programmes was $d = 0.10$ which is equivalent to about a 10% decrease in recidivism. When Lipsey and Wilson (1998) examined the results of a subset of 200 of the 440 studies – the ones which had involved youth who had come before juvenile court – they found that the average weighted effect size for reductions in offending was 0.12 which is equivalent to about a 12% decrease in recidivism. In the most recent update of this work Wilson, Lipsey and Soyden (2003) report a mean weighted effect size on recidivism for treatments with white youth of 0.17 and for minority youth of 0.11. These reviews have also shown that many of these evaluation studies have been poorly designed and that the research design influences results almost as strongly as the treatment programmes. The studies with control groups, larger sample sizes, and longer follow-up periods tended, on average, to produce smaller effect sizes. Even more importantly, evaluation studies undertaken by programme designers consistently yield higher effect sizes than those undertaken by independent teams (Petrosino & Soydan, 2005).

Parts 1 to 4 of this appendix review interventions designed to reduce adverse outcomes in 13-17 year old youth with a history of persistent conduct problems. Part 1 reviews the research on programmes designed for the parents and caregivers of adolescents with persistent conduct problems. Part 2 reviews the research on programmes designed to be implemented by teachers in school settings. Part 3 reviews the therapeutic programmes which have been developed for the youth themselves and Part 4 reviews the research on multimodal interventions for antisocial adolescents.

Within each appendix, interventions are classified as Tier 1, Tier 2 or Tier 3 interventions as done in previous reports by the Advisory Group on Conduct Problems. Tier 1 interventions are those which have been designed with the aim of reducing the prevalence of antisocial behaviour in a defined population or subpopulation. Tier 2 interventions are those which have been designed to reduce antisocial behaviour in individual youth with clinically significant levels of conduct problems. Tier 3 interventions are more intensive interventions

which can be used in the case of youth whose behaviour has failed to improve as a result of a Tier 2 intervention. This classification differs from the more common classification of therapeutic interventions as Primary (Universal), Secondary (Selected) or Tertiary (Indicated) (e.g. Domitrovich & Greenberg, 2000). The Tier 1 to 3 classification differs in that it groups Universal and Selected interventions together as Tier 1 interventions and divides the Indicated interventions into two categories Tier 2 and Tier 3 according to their intensity.

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Part 1

Parent Training Interventions for the Parents of 13- to 17-Year Old Youth with Life Course Persistent Conduct Problems

One type of effective intervention for *children* with serious and persistent conduct problems is the delivery of assistance (variously referred to as behavioural parent training, parenting training, or parent management training) to the parents of children with conduct problems. The majority of parent management training programmes are programmes which have been designed for the parents of preschool and primary school aged children. However, there are three evidence-based parent management training programmes which have been designed specifically for the parents of teenagers. These are the Adolescent Transitions Programme, Teen Triple P, and Functional Family Therapy.

1.1 The Adolescent Transitions Programme (ATP)

The long-term goals of the Adolescent Transitions Programme are to arrest the development of antisocial behaviours and drug experimentation in the teenage years. Intermediate goals of the program are to improve parent family management and communication skills.

Description. The Adolescent Transitions Programme is a tiered intervention which can operate at the universal, the selected and the indicated levels (Tiers 1 and 2). The *universal* level of ATP is available to all parents of all the students in a school. It operates through a Family Resource Centre based at the local school. The goal, through collaboration with the school staff, is to engage parents, establish norms for parenting practices, and disseminate information about risks for problem behaviour and substance use. It uses a video "Parenting in the Teenage Years" to help parents identify observable risk factors. The video focuses on the use of effective family management skills, including positive reinforcement, monitoring, limit-setting, and relationship skills to facilitate evaluation of levels and areas of risk. In addition, all students participate in a 6 week class curriculum and at-home activities.

At the *selective* level, called the Family Check-Up, the ATP offers family assessment and professional support to identify those teenagers who are at risk for antisocial behaviour and substance use. At the *indicated* level, direct professional support is provided to parents for making the changes indicated by the Family Check-Up. Services may include parent management training courses, parenting groups, or case management services. The parent management training programme is a version of PMTO adapted for the parents of teenagers. The manual for the parenting skills programme focuses on using incentives to promote positive behaviour change, limit-setting and supervision, and family communication and problem-solving skills. Parent training is delivered during 12 weekly, 90-minute group meetings and 4 individual family meetings. There are also monthly booster sessions for at least three months following completion of the parenting group.

Resources. Treatment manuals exist for the parenting programme. Group facilitator training is available and can be provided either on site or at the University of Oregon Family Centre. There is a book describing the therapeutic programme (Dishion & Kavanagh, 2003) and a book in two parts for parents (Forgatch & Patterson, 2005; Patterson & Forgatch, 2005).

Effectiveness. The only evaluations of ATP to date are evaluations of its use at the universal (Tier 1 level). An initial component analysis of the programme found that the parent management group reported reductions in observed parent-youth conflict, reduced antisocial behaviour in teacher reports and reductions in post-programme smoking and drug use (Dishion & Andrews, 1995). Similar effects were obtained in an independent replication by Irvine, Biglan, Smolkowski, Metzler and Ary (1999). The full programme was first integrated into a sample of middle schools (Year 7 to 10 schools) in 1997 and evaluated by randomly allocating Year 7 classrooms to either ATP or normal services. This version of PMTO has been evaluated by progressively recruiting two cohorts (totalling almost 1,000 families) and following them over a 4 year period. In general terms, the families randomly assigned to the ATP programme reported less contact with deviant peers, teachers reported less antisocial behaviour and the youth reported less substance abuse over the 4 year period with these effects being correlated with frequency of contact with the programme (Dishion, Bullock & Granic, 2002; Stormshak, Dishion, Light & Yasui, 2005)

Conclusion. The Oregon version of PMT has been shown repeatedly to be effective in changing the behaviour of parents and in halting the antisocial development of children in the 4 to 12 year old age range. However, the ATP is a multicomponent intervention and the effects of the various components have yet to be identified. Furthermore, evaluations of ATP to date have not separated out its effects on youth with early onset conduct problems and other, less at-risk, youth so its effects on the most at risk youth are unknown. It is important therefore that any introduction of ATP into New Zealand include a series of well designed evaluations to assess its effectiveness for these different groups of adolescents in the New Zealand setting.

1.2 Functional Family Therapy (FFT)

Functional Family Therapy was developed by Alexander and Parsons at the University of Utah in the early 1970s. FFT integrates systems theory (to alter the blaming attributions of family members) and applied behaviour analysis (to alter dysfunctional patterns of family interaction).

Description. FFT is based on the assumption that a youth's antisocial behaviour is serving a necessary function (for them) and that patterns of family interaction and communication can be changed so that antisocial behaviour is no longer functional. The intervention is designed for the families of youth aged of 11 to 18 years. FFT is delivered by individual therapists, usually in the home setting, and involves 8 to 12 one-hour sessions for mild cases and up to 26-30 hours of therapist contact for more difficult cases. The entire family attends

FFT sessions which are divided into three phases. In Phase 1 (the Engagement and Motivation phase) the therapist focuses on disrupting the habitual negative interactions between family members by reframing these interactions in a way that is benign and non blaming, works to modify the culture of negativity and resistance, and works to build a therapeutic alliance, hope, and motivation to change. In Phase 2 (the Behaviour Change phase) parents are taught the conflict management, limit setting, contingency contracting and response cost techniques taught in all of the effective parent management training programmes. Phase 3 (the Generalisation phase) is guided by the needs of the individual family and focuses on harnessing available community resources to overcome current environmental constraints.

Resources. Treatment manuals and FFT training are available via the FFT website at www.fftinc.com/ and a recently updated treatment manual (Sexton, 2010) is now publicly available.

Effectiveness. The classification of FFT as an effective intervention rests on the results of three trials with control groups. In the first of these, four groups of 10 adolescents who had been arrested or detained by the Juvenile Court were assigned to one of two FFT treatment groups or one of two control groups (Alexander and Parsons, 1973; Klein, Alexander & Parsons, 1977; Parsons & Alexander, 1973). In the second study, 30 adolescents who had been incarcerated in a state training school for serious and repeated offences were assigned to a treatment involving a return home, FFT, remedial education and job training while a matched sample of control youths was created by identifying 29 youths with similar offence histories, date of arrest and incarceration records. Control youth were provided with services as usual. These included placement in a group home, behaviour management training, a tracker, and help in finding jobs and educational opportunities (Barton, Alexander, Waldron, Turner & Warburton, 1985, Study 3). The third study was a replication by an independent research team using a somewhat longer intervention and more extensively trained and supervised therapists. The FFT group consisted of 27 adolescents with multiple offences and the control group was a probation-only group (Gordon, Arbuthnot, Gustafson & McGreen, 1988; Gordon, Graves and Abuthnot, 1995). In all three evaluations, the teenagers whose families received FFT committed fewer than half as many offences during the follow up period as the teenagers who had been assigned to control conditions. In Study 3, 40% of the FFT youth had avoided further offending at a 15 month follow-up compared to 7% of the comparison group. When followed up in young adulthood, 90% of the FFT group had avoided further convictions compared to 60% of the comparison group.

The research team has also undertaken a number of component analysis studies designed to assess the best ways of establish a therapeutic relationship with family members (e.g. Alexander, Barton, Schavio & Parsons, 1976), the importance of positive reframing as a way of reducing negativity and resistance during the initial stages of FFT (e.g. Robbins, Alexander, Newell & Turner, 1996; Robbins, Alexander & Turner, 2000), the importance of ethnic matching in the selection of therapists (Flicker, Waldron, Turner, Brody & Hops, 2008), and so on.

According to the FFT website, FFT has been implemented in some 220 sites across 44 US states, Norway, the Netherlands, Belgium, New Zealand and Great Britain. These sites include mental health settings, drug and alcohol programmes, school based programmes, and child welfare and juvenile justice settings. Aos, Phipps, Barnoski and Lieb (2001) have calculated that MST returns \$13.25 in benefits for each dollar spent on treatment.

Conclusion. FFT is the only well evaluated family intervention for the families of hard core delinquent teenagers and it is the only intervention which includes well developed strategies for replacing habitual negative interactions between family members with a therapeutic alliance and motivation to change. This is achieved by initially accepting the family as it is – something which many therapists find extremely difficult. It follows therefore that the introduction of FFT into New Zealand will need to include a series of well designed evaluations to assess not only the effectiveness of the programme but also the fidelity of its implementation – especially when undertaken by therapists whose initial training has been in therapies other than FFT.

1.3 Teen Triple P Positive Parenting Programme

Teen Triple P is an upward extension of the Level 4 Triple P parent management training programme reviewed in previous Advisory Group reports (Advisory Group on Conduct Problems, 2010, 2011). Like all of the effective parent management training programmes Triple P is a behavioural programme, that is, an application of experimental behaviour analysis research. It has been designed for the parents of youth aged 12 to 16 years with adolescent onset conduct problems (not for teenagers with early onset conduct problems).

Description. Teen Triple P is a 10 hour programme designed to equip parents with the positive parenting skills which are needed in order to develop, in teenagers, the social, communication, self-regulation and problem solving skills which they will need in order to prevent the further development of risky, delinquent, or antisocial behaviours. Parents are taught about the causes of children's behaviour problems, strategies for encouraging children's development, strategies for teaching new skills, strategies for encouraging and reinforcing desirable behaviour, and strategies for managing undesirable and risky teenage behaviour (such as drinking and staying out late).

Resources. Teen Triple P is a manualized programme. Programme resources exist for three versions of the programme: (a) a self-directed study version (Ralph, 2005), a Group version involving four 2-hour sessions plus up to four 15 to 30 minute telephone follow-up consultations (Sanders & Ralph, 2002), and (c) a Standard (individualised) version involving ten 60- to 90-minute sessions plus telephone consultations. The Triple P organisation provides 3-day facilitator training at multiple sites, trainer accreditation, a video presentation and booklet on effective parenting (Ralph & Sanders, 2001), a facilitator's manual (Sanders & Ralph, 2002), and a self-help workbook (Ralph & Sanders, 2002).

Effectiveness. Some before and after data involving parent reported of improvements in child behaviour, reductions in family conflict and changes in parenting practices following

pilot studies of Group Teen Triple P and Self-Directed Teen Triple P have been published (Ralph & Sanders, 2003; Stallman & Ralph, 2007). However, the Inclusion of Teen Triple P in this review rests on the results of a single, as yet unpublished, RCT (Salari, 2009) involving 43 families with a child in the 11 to 16 year age range who received a score in the borderline or abnormal range of the Strengths and Difficulties Questionnaire. Of the 33 families assigned to the intervention, 19 completed the intervention and 17 completed the follow-up questionnaires (a 52% retention rate). Of the families assigned to the waitlist control, 26 contributed data to the analysis. The main outcomes of the intervention included (a) a reduction in parent reported child disruptive behaviour on the SDQ ($d = .85$), (b) a reduction in parent reported parent-adolescent conflict on the Conflict Behaviour Questionnaire ($d = 1.21$) and a parent reported reduction in the use of harsh and coercive parenting strategies ($d = 1.15$). These changes were maintained at the three-month follow up. In 2011 recruitment was initiated for large scale RCT evaluations of Teen Triple P at the University of Auckland (New Zealand) and the University of Queensland and these are expected to provide further data on retention and efficacy as measured by parent reports.

According to the Triple P website, Triple P training is being provided in Australia, New Zealand, Belgium, Canada, Germany, Hong Kong, the Netherlands, Singapore, Switzerland, Britain, and the United States.

Conclusion. Teen Triple P has been specifically designed for the parents of teenagers with adolescent onset, not early onset, conduct problems. Secondly, evidence of effectiveness rests on the results of a single RCT using relatively weak outcome measures. Thirdly, there are continuing reports of relatively high attrition rates from this programme (e.g. Newcombe, 2011). Given these factors, decisions regarding the widespread introduction of Teen Triple P into New Zealand is probably best postponed until the results of the New Zealand and Queensland randomised control trials become available.

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Part 2

School-Based Interventions for 13- to 17-Year Old Youth with Life Course Persistent Conduct Problems

There is less research into the treatment of conduct problems in secondary school settings than there is in primary school settings. This is largely due to the difficulties which are inherent in conducting research in a setting where the student moves from one teacher to the next from hour to hour. Nevertheless, controlled experimental analyses have identified a number of school-based interventions which are effective in treating adolescents who arrive at secondary school with life course persistent conduct problems and these are described in this section.

2.1 School-Wide Positive Behaviour Support

School-Wide Positive Behaviour Support (SWPBS) is a Tier 1 (universal) intervention designed by behaviour analysts to reduce the incidence of conduct problems across all areas of a school. The primary aims of School-Wide Positive Behaviour Support are (a) to redesign the school environment to reduce problem behaviour, (b) to provide teachers with new skills to reduce problem behaviour, (c) to rigorously acknowledge and reward appropriate student behaviour while at the same time removing inadvertent reinforcement for inappropriate behaviour, and (d) to put in place an active and on-going data collection system which can be used to guide future changes.

Description. In schools that adopt SWPBS, all the teachers in a school are trained over a period of several months to treat recurring misbehaviours in the same way that they treat recurring academic mistakes, that is, as learning opportunities which require a teaching goal, demonstrations of what is expected, practice, feedback, monitoring, and reinforcement for improvement. SWPBS is the first step in the implementation of a three-tier Response to Intervention model that includes primary (school-wide), secondary (classroom), and tertiary (individual) interventions (Sugai & Horner, 2006).

Resources. SWPBS is a manualised programme (Sailor et al., 2010). Instruments to measure fidelity of implementation have been developed and validated (Horner, Todd, Lewis-Palmer, Irvin, Sugai, & Boland, 2004; Walker, Cheney & Stage, 2009). Details are available on the PBIS website at: <http://www.pbis.org>. Careful documentation of a high school implementation in Chicago has resulted in several papers describing the problems which need to be overcome for a successful implementation at the secondary school level (e.g. Bohannon Fenning, Borgmeier, Flannery & Malloy, 2009; Flannery, Sugai & Anderson, 2009).

Effectiveness. Inclusion of SWPBS as an evidence based programme rests on a 15 year history of research and development (Advisory Group on Conduct Problems, 2011), on the results of several within group and between group evaluations of SWPBS at the primary and intermediate school level (e.g. Lassen, Steele & Sailor, 2006) and on the results from a single

within-group evaluation of the introduction of SWPBS into a Chicago high school with 1,800 students (Bohanon et al., 2006). Recent reports suggest that further high school evaluations are currently under way (Bohannon, Flannery, Malloy & Fenning, 2009). The fact that SWPBS is being implemented in over 9,000 schools across some 34 US states and that data from several state-wide implementations are beginning to appear in the literature (e.g. Eber, 2005) has also been taken into account.

Conclusion. It is clear from multiple evaluations that School-Wide Positive Behaviour Support is likely to be the most effective of the school wide behaviour management programmes currently available. It is also clear from reports of the secondary school implementations that the introduction of SWPBS faces multiple difficulties and that a sustained implementation effort involving all teachers, adequate professional development for teachers, and high levels of on-going supervision over several years is required for a successful implementation. Because there have been no randomised groups evaluations of SWPBS in the secondary setting, well designed evaluations by independent evaluators will be essential during the planned introduction of SWPBS into New Zealand secondary schools.

2.2 Group Contingency Management Programmes

Tier 1 (Universal) intervention programmes can operate at both the school level and at the classroom level. A wide range of classroom management programmes have been developed and introduced into schools over the years. The classroom management programmes with the strongest evidence base and the strongest effects on secondary school students with persistent conduct problems are the group contingency management programmes such as the Good Behaviour Game (Tingstrom, Sterling-Turner & Wilczinski, 2006) and Class-Wide Function-Related Intervention Teams (Kamps et al., 2011).

Description. With Group Contingency Management, the teacher first establishes a small number (e.g. three or four) positively stated behavioural rules; divides the class into teams, groups, or rows; establishes a reward criterion; and rewards either the winning team (or the teams which meet criterion) with an agreed upon privilege. The criterion may be a certain standard of behaviour or a certain standard of academic performance. The privileges are events which function as reinforcers for teenagers such as free time, time to work on homework, tickets in a raffle (e.g. for a free drink, snack or lunch) or points towards a prized activity such as mobile phone time, computer time, a desired outing, or similar event. Privileges can be dispensed on a period by period, daily, twice weekly, or weekly basis depending upon the social maturity of the target students.

Resources. The Good Behaviour Game version of group contingency management is a manualised programme (Embry, Straatemeir, Lauger & Richardson, 2003). A Teacher's Guide is available from Hazelden: <http://www.hazelden.org/web/go/paxgame>. Note however, that the Hazelden resources have been written for primary and intermediate school teachers.

Effectiveness. The inclusion of group contingency management as an evidence based behaviour management programme suitable for high school classrooms rests on the results of four well controlled within-group experiments involving secondary school classrooms (Nevin, Johnson & Johnson, 1982; Phillips & Christie, 1986; Popkin & Skinner, 2003; Salend, Reynolds & Coyle, 1989) together with the fact that there have been more than 10 within-group evaluations involving 10- to 17-year old students. Group contingency management has been used to reduce disruptive and antisocial behaviour to very low levels (Phillips & Christie, 1986; Salend et al., 1989), to improve engagement and achievement (Nevin et al., 1982; Popkin & Skinner, 2003) and to teach students how to evaluate their own classroom behaviour (Salend, Whittaker & Reeder, 1992).

Conclusion. The effects on antisocial behaviour of contingency management programmes have been more extensively studied than the effects of any other type of motivational intervention and, as a consequence, must be included in any list of evidence-based treatments for conduct problems. While these can be individualised or group based, teachers report that they have difficulty in implementing individualised reinforcement programmes in the classroom but much less difficulty in implementing group programmes. It is this fact which points to the inclusion of the group reinforcement programmes in the present list of demonstrably effective classroom interventions for adolescent conduct problems.

2.3 Check and Connect

Check & Connect is a Tier 2-3 (indicated) intervention, initially developed by behaviour analysts, for students with conduct problems and students who are at risk of dropping out of school.

Description. Check and Connect involves an advanced form of mentoring by a trained counsellor or social worker who is responsible (a) for acting as a bridge between home and school, (b) for monitoring progress on a daily basis, (c) for ensuring school attendance, (d) for working to increase student engagement with school and (e) for providing crisis counselling and personal guidance as required for each of the students in a caseload of up to 25 at-risk students. The “Check” component of Check & Connect involves daily monitoring of student attendance, suspensions, grades, and so on. The “Connect” component is a more intensive component which involves individualised weekly or biweekly therapeutic “conversations” where problem solving is modelled and practised, conflict-resolution training provided, and peer, school and home activities planned and reviewed. Check & Connect staff also oversee transitions from one school to another and may play an advocacy role during school disciplinary proceedings.

Resources. The main resource is the Check & Connect manual (Christenson et al., 2008). Training details and publications can be found on the Check & Connect website at <http://ici.umn.edu/checkandconnect/>

Effectiveness. Inclusion of Check & Connect as an evidence-based programme for students with persistent conduct problems rests on the results of two evaluations: one at the secondary school level (Sinclair, Christenson, Evelo & Hurley, 1998) and one at the primary school level (Lehr, Sinclair & Christenson, 2004). The secondary school study involved 94 students with severe learning or behavioural disabilities who had participated in 2 years of Check & Connect during Grades 7 and 8. At the start of Grade 9 (at age 15) half the students were assigned to a further year of Check & Connect and half were returned to normal school conditions. The latter students served as the control group. At the end of Grade 9 significantly more of the Check & Connect students were still at school. They also received significantly lower scores on the problem behaviour scale of Gresham & Elliot's Social Skills Rating System. The primary school study involved 147 students and also resulted in improved school attendance. However, no measure of problem behaviour was collected.

Conclusion. One of the major aims of any intervention for conduct disordered adolescents is to maintain school attendance and Check and Connect appears to be the intervention with the strongest evidence base for this particular group of students. However, because this conclusion rests on a single evaluation at the secondary school level, any decision to introduce this intervention into New Zealand secondary schools will need to be accompanied by well designed evaluations to assess its effectiveness in the New Zealand setting.

2.4 Prevent-Teach-Reinforce

Prevent-Teach-Reinforce (PTR) is a manualised programme designed by behaviour analysts to meet the educational needs of individual students with serious and persistent conduct problems in the school setting (Dunlap, Iovannone, Wilson, Kincaid & Strain, 2010; Dunlap, Iovannone, Kincaid et al, 2010). This makes it a Tier 2-3 (Indicated) intervention for students with conduct problems. Prevent-Teach-Reinforce consists of the following four elements: 1) Functional assessment to identify the conditions which are currently operating to maintain antisocial behaviour, 2) Prevent, that is, removing the conditions which are currently triggering and/or reinforcing the continued use of antisocial responses, 3) Teach – teach the behaviours and skills which are to function as replacement behaviours and 4) Reinforce, that is, introduce motivational contingencies for attendance, engagement and progress towards social and academic learning goals. Prevent-Teach-Reinforce brings together inside a single manualised programme each of the elements which have been found, through extensive within-subject experimentation, to be necessary in the effective education of 12 to 17 year old students with persistent conduct problems. These elements and the research base for each are described in the sections which follow.

2.4.1 Effectiveness of PTR as a programme

The inclusion of Prevent-Teach-Reinforce as an evidence-based programme rests in part on the results of a single RCT involving 245 5- to 13-year old students in 65 Florida and Colorado schools (Iovannone et al., 2009). Preliminary results from the Iovannone et al. RCT indicate that students who received the PTR intervention programme developed

significantly higher levels of social skills and academic engaged time and engaged in significantly less problem behaviour than students in the control group.

2.4.2 Effectiveness of functional assessment

Functional Assessment combines direct observation of the behaviour of the referred youth together with teacher reports to identify: (a) the situations and events which routinely trigger antisocial behaviour, (b) the reinforcing consequences which are resulting from antisocial responses, (c) the negatively reinforcing outcomes which are resulting from successful escape and avoidance responses and (d) the consequences of (or lack of consequences for) prosocial alternative responses which result in these responses becoming a less attractive way of responding to academic and social demands.

Observations of these events is used to devise behaviour management and learning management plans which are likely to motivate a change from antisocial to prosocial ways of responding to classroom demands and learning activities. FA is a manualised diagnostic procedure. There are at least nine published manuals written for school personnel which describe how to implement the functional assessment process. See, for example, Chandler and Dalquist (2010), Crone and Horner (2003), and Umbreit, Ferro, Liaupsin and Lane (2007).

The effectiveness of FA procedures can be evaluated by measuring the proportion of functional assessments which result in interventions which, when implemented with fidelity in the classroom, have resulted in a reduction in disruptive and other antisocial behaviours in the school setting. There are at least three reviews of functional assessment (Ellis & Maggee, 2004; Heckaman, Conroy, Fox & Chait, 2000; Solnick & Ardoin, 2010). The 22 FA studies reviewed by Heckaman et al. (2000) involved 68 children with conduct problems. Of these, five of the students in four of the studies fell within the 12 to 17 year old age range. In all cases the interventions selected following functional assessment resulted in a reduction in antisocial behaviour and/or increased use of a prosocial alternative behaviour. More recently reports are beginning to appear which confirm this conclusion using experiments which directly compare the relative effectiveness of FA based behaviour plans and those based on other grounds (e.g. Ingram, Lewis-Palmer & Sugai, 2011). The Heckaman et al. (2000) review also showed that the most common factors shaping and maintaining the inappropriate behaviour of children and youth with conduct problems in the classroom are (a) higher rates of teacher attention to inappropriate than to appropriate classroom behaviour and (b) learning tasks which are too difficult together with the inadvertent but regular negative reinforcement of escape and avoidance responses.

2.4.3 Effectiveness of removing the reinforcement for antisocial behaviour

Antisocial behaviour may result in positive reinforcement for the student (as when disruptive behaviour results in one-to-one assistance from the teacher) or it may result in negative reinforcement (as when disruptive behaviour enables the student to avoid disliked academic tasks). A number of within-subject experiments have examined the effects of extinction procedures, that is, the removal of pre-existing sources of positive reinforcement for antisocial behaviour, and escape-extinction processes, that is, the removal of pre-

existing sources of negative reinforcement for antisocial escape and avoidance behaviours in students with persistent conduct problems. Several studies have demonstrated that extinction contingencies have the same effect on the inappropriate behaviour of secondary school students as they do on the inappropriate behaviour of primary school students (e.g. Ervin, DuPaul, Kern & Friman, 1998; Liaupsin, Umbreit, Ferro, Urso & Upreti, 2006).

2.4.4 Effectiveness of teaching of replacement social behaviours

An essential element of the Prevent-Teach-Reinforce programme is the teaching of missing social skills and academic skills, that is, the behaviours which the student will be expected to use in place of the antisocial behaviours which they have been using to date. Experiments demonstrating positive effects as a result of the teaching of replacement behaviours in secondary school students with persistent behaviour problems include those by Hansen and Lignugaris-Kraft (2005) who taught social skills, Knapczyk (1988) who taught prosocial alternatives to aggression, Leger et al. (1979) who taught communication skills, Presley and Hughes (2000) who taught students how to handle anger provoking situations, and Strong, Wehby, Falk and Lane (2004) who focused on improving reading skills as the replacement behaviour.

2.4.5 Effectiveness of teaching of missing academic skills

To be effective in accelerating academic achievement, this teaching will need to meet at least two requirements. It will need to be both developmentally appropriate and evidence based (Sutherland, Lewis-Palmer, Stichter & Morgan, 2008).

When students with early onset conduct problems begin to fall behind, classroom tasks become increasingly difficult and increasing onerous. If remedial teaching is to be effective it must begin by moving the underachieving student onto developmentally appropriate curriculum tasks, that is learning tasks which are within the student's current level of ability. This move is part of the Prevent component of Prevent-Teach-Reinforce. Sometimes this change alone will be sufficient to rekindle motivation, task completion, and learning (e.g. Dunlap, Kern-Dunlap, Clarke & Robbins, 1991; Ervin, DuPaul, Kern & Friman, 1998; Kern, Delaney, Clarke, Dunlap, & Childs, 2001; Liaupsin et al., 2006; Penno, Frank & Wacker, 2000; Stowitschek, Lewis, Shores, & Ezzell, 1980).

In order to accelerate the academic progress of underachieving students, teaching methods must be chosen which are the most effective available. With effective evidence-based teaching, adolescents with conduct problems can make two to three years progress in basic academic skills per year of instruction (Johnson & Layng, 1992). Effective teaching procedures all have one thing in common and that is a high rate of interaction with developmentally appropriate learning opportunities. This increased rate of responding can be achieved in a number of ways – by means of visual response systems, fast paced instruction, peer tutoring, self-directed practice procedures and so on.

Visual response systems. Visual response systems are teaching arrangements in which all students respond to teacher questions and all student responses are visible to the teacher. The classic experiments were undertaken by Cooke, Heron and Heward (1980) and Test and

Heward (1980) who found that a visual response system raised both the level of engagement and the level of achievement of 13-18 year old delinquents. The procedure which has been most extensively studied involves response cards. These are acetate cards or small whiteboards on which students write their responses to teacher questions. A manualised procedure for using response cards will be found in Cipani (2007). Eighteen studies of the effects of response cards have been reviewed by Randolph (2007) who found an effect size of $d = 1.08$ on test scores for response card conditions across 18 primary and secondary school samples.

Fast paced instruction. A second way of increasing the rate of response opportunities during classroom lessons is for the teacher to present response opportunities at a faster pace. A rapid pace of teacher student interactions is one of the defining features of Direct Instruction systems which are amongst the most effective teaching systems developed to date (Adams & Engelman, 1996). Although most experimental studies of increased pacing involve primary school students (Sutherland & Wehby, 2001), there have been at least two demonstrations of accelerated learning in secondary school students with conduct problems who have been exposed to the faster pacing of Direct Instruction teaching programmes (Flores & Ganz, 2009; Strong et al., 2004).

Peer Tutoring. A third way of increasing the rate of engagement with developmentally appropriate learning opportunities is to recruit and train classmates to operate as peer tutors. Reviews of peer tutoring involving students with conduct problems have appeared (e.g. Ryan, Reid & Epstein, 2004) show that peer tutoring can produce both improved engagement and increased learning rates in secondary students with persistent conduct problems (e.g. Bell, Young, Blair & Nelson, 1990; Franca, Kerr, Reitz & Lambert, 1990; Penno et al., 2000; Salend & Sonnenschein, 1989; Salend & Washin, 1988; Stowitschek, Hecimovic, Stowitschek & Shores, 1982).

Self-directed practice. Once motivational problems have been overcome, it is often possible to increase the rate of contact with developmentally appropriate learning opportunities by providing appropriate study materials and teaching students with conduct problems how to self-manage and/or self monitor their own study and practice. While self monitoring studies tend to have weaker effects, there are, nevertheless, a number of experimental demonstrations of accelerated progress as a result teaching basic self management skills to secondary school students with conduct problems (e.g. Carr & Punzo, 1993; Glomb & West, 1990; Hubbert, Webber & McLaughlin, 2000; Martin & Manno, 1995; Prater, Hogan & Miller, 1992; Wood, Murdoch & Cronin (2002).

2.4.6 Effectiveness of introducing of reinforcement contingencies to motivate improvements in social and academic performance

The third element in Prevent-Teach-Reinforce is the introduction of a programme to motivate improvements in social behaviour and academic performance. The motivational programmes which have been shown to be most effective at all levels are the contingency management programmes (e.g. reinforcement programmes) designed by behaviour analysts (Martella, Nelson, & Marchand-Martella, 2003; Rathvon, 2008). The following examples illustrate this claim.

Differential attention Research into the way in which teachers distribute their attention and approval in the secondary classroom indicates that they tend to approve academic responses more often than they disapprove of them but that they attend much more frequently to inappropriate than to appropriate social behaviour (Beaman & Weldall, 2000). A number of experiments have demonstrated that when teachers switch their attention from student misbehaviour to desired social behaviour the frequency of occurrence of disruptive and antisocial behaviour almost always decreases (often dramatically). Interestingly, this redirection of teacher attention has been found to have much the same effect on the behaviour of secondary students with conduct problems as it does on the behaviour of primary students (e.g. Friman, Jones, Smith, Daly, & Larzelere, 1997; McAllister, Stachowiak, Baer & Conderman, 1969; Rasmussen & O'Neill, 2006; Seymour & Sanson-Fischer, 1975; Stage et al., 2006; Workman, Kindall & Williams, 1980). Dunlap, Iovannone, Kincaid et al. (2010) argue that the change from high rates of antisocial responses to high rates of prosocial responses is most likely to be observed in classrooms where the teacher succeeds in increasing attention for appropriate behaviour (and reducing attention to deviant behaviour) to the point where the antisocial teenager is working in an environment where he or she is receiving four times as many positive consequences as negative consequences and corrections (Friman et al., 1997).

Training studies suggest that the task of motivating a teacher to switch from 75% attention to misbehaviour to 75% attention to appropriate behaviour can be accomplished in a few weeks and that teacher self-recording may be sufficient to maintain increased levels of attention to appropriate behaviour (e.g. Kalis, Vannest & Parker, 2007). Teachers who experience difficulty in switching their attention from inappropriate to appropriate behaviour can be prompted to do so by training the student with conduct problems to show appreciation when helped, to seek teacher feedback on correct class work and to otherwise reinforce their teacher when the teacher responds to them with positive attention (e.g. Polirstok & Greer, 1977).

It is also possible to teach peers to identify and commend positive social behaviours (tootling) rather than reporting antisocial behaviour (tattling) (Skinner, Neddenriep, Robinson, Ervin & Jones, 2002). Positive peer reporting not only increases positive social interaction and reduces negative interaction amongst peers but can also result in increased inclusion of students who, because of their antisocial behaviour, have been rejected by their peers (e.g. Ervin, Miller & Friman, 1996; Jones, Young & Friman, 2000).

Token reinforcement programmes. A second way of motivating the shift from antisocial to prosocial responding in the classroom is to make access to a preferred activity (or a period of free time in which the student can engage in an activity of their own choosing) contingent upon a defined level of appropriate classroom behaviour. Rapid reductions in disruptive and other forms of antisocial behaviour typically occur when ceasing to engage in these behaviours in the classroom is required in order to earn access to desired activities (e.g. Champagne, Ike, McLaughlin & Williams, 1990; Salend, Reynolds & Coyle, 1989; Theodore, Bray, Kehle & Jensen, 2001). In some experiments, access to the reinforcing activity has been provided at home – mediated by a note from school informing the parent that the reward has been earned (e.g. Bailey, Wolf & Phillips, 1970; Leach & Byrne, 1986;

Leach & Ralph, 1986; Schumaker, Hovell, & Sherman, 1977; Trice, Parker, Furrow & Iwata, 1983).

With contingency management operations, the criterion may be a reduction in antisocial responses or it may be an increase in work completed or work completed correctly. In most cases, reinforcing task completion or achievement will be more appropriate because, as task completion increases, inappropriate behaviour almost always decreases (e.g. Ayllon & Roberts, 1974). When task engagement and task completion are required in order to earn access to desired activities, rapid improvements in these aspects of performance typically occur (e.g. Liaupsin et al., 2006; Neilans & Israel, 1981)

Once high levels of task engagement (and low levels of antisocial behaviour) are occurring the contingency can be changed to one where progress towards a *learning goal* earns access to the free time or the preferred activity (e.g. Kelley & Stokes, 1982; Marholin, Steinman, McInnis & Heads, 1975; Newstrom, McLaughlin, & Sweeney, 1999; Tyler & Brown, 1968). The learning goal may be an academic or a social learning goal (e.g. Hansen & Lignugaris-Kraft, 2005).

Long term applications of reinforcement within a classroom token economy have demonstrated increased achievement as well as increased levels of appropriate classroom behaviour using both within subject designs (e.g. Safer, Heaton & Parker, 1981) and randomised groups designs (e.g. Rollins, McCandless, Thompson & Brassell, 1974). In the Rollins et al. experiment, teachers attended 15 mornings of professional development in reinforcement processes and were subsequently observed using higher rates of positive reinforcement and lower rates of punishment in their classrooms. The experimental classes were less disruptive, more on task and gained more in both IQ and school achievement compared to the students in control classes.

Concurrent reinforcement plus response cost programmes. One of the important findings from the classroom contingency management research is that the most rapid change from antisocial to prosocial responding occurs when both types of responding have consequences, that is, when prosocial responses result in reinforcement while antisocial responses result in a penalty such as response cost (e.g. Rosén et al., 1990). The simplest response cost procedure is a point loss scheme in which the student loses units of access to a previously, but conditionally, granted period of free time or loses units of access to a preferred activity. There are some 20 single case experimental analyses of the effects of various types of contingent sanctions on the antisocial behaviour of children and youth with conduct problems in the classroom. These include demonstrations of a rapid reduction in teenage antisocial behaviour following the introduction of response cost operations (e.g. Phillips, Wolf, Fixsen & Bailey, 1976; Rosén, Gabardi, Miller & Miller, 1990; Trice & Parker, 1983). Alternatively, the student may lose access to a desired home activity that day (e.g. Todd, Scott, Bostow & Alexander, 1976).

The transfer to self-management. Once the student is complying with academic demands, it will often be possible at the secondary level to transfer, first to a self-monitoring procedure and then to a full self-management operation (e.g. Ervin et al., 1998; Hall & Zentall, 2000;

Kern, Childs, Dunlap & Clarke & Falk, 1994; Neilans & Israel; 1981; Penno et al., 2000; Smith & Sugai, 2000; Smith, Young, West, Morgan & Rhode, 1988).

Conclusion

The Prevent-Teach-Reinforce model integrates a large corpus of scientific research into the diagnostic assessment, instructional design, teaching procedures and classroom management processes which have been shown to be effective in remedial work with secondary school students with persistent conduct problems and those with comorbid conduct problems and learning delays. Both functional analysis and contingency management require some understanding of the principles of learning on which they are based. For teachers who have not been exposed to this underlying learning theory during preservice training, professional development will take some time. Both functional analysis and contingency management will be new practices for most New Zealand teachers. For teachers who are approaching these practices for the first time, inservice training will require additional mentoring, study, practice and supervision (Northup et al., 1994). For this reason it will be essential for the introduction of PTR into New Zealand schools to be systematically evaluated by independent evaluators. Both the effectiveness of the inservice training and the effectiveness of well implemented PTR will need to be evaluated.

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Part 3

Interpersonal Skills Training for 13- to 17-Year Old Youth with Life Course Persistent Conduct Problems

Adequate levels of interpersonal skill are essential for successful adult functioning and predict adequate long-term psychological and social adjustment (Gresham, Sugai, & Horner, 2001). Training in interpreting and responding appropriately to the social cues of other people is variously referred to as social skills training, interpersonal skills training or cognitive behaviour therapy (CBT). CBT curricula most typically involve training and practice in some combination of social skills, social problem solving skills, cognitive restructuring, anger management skills and/or assertiveness skills.

A failure to acquire age appropriate interpersonal skills is one of the defining characteristics of children and youth with persistent conduct problems (Church, 2003; Kavale, Mathur, Forness, Rutherford & Quinn, 1997). At first glance, this suggests that it should be possible to treat the social skills deficits which are common to antisocial youth using a training programme designed both to teach missing social skills and to instil prosocial attitudes and empathy towards others. It is this belief which almost certainly explains the very large number of documented attempts to design social skills training programmes which will function as an effective interventions for children and youth with conduct problems (e.g. Maag, 2006; Mathur, Kavale, Quinn, Forness & Rutherford, 1998).

The self-evident importance of social learning also helps to explain the optimistic interpretation of social skills training research which frequently occurs in reviews of this research. Following a review of 56 treatment studies, Nangle, Erdley, Carpenter and Newman (2002, p. 169), for example, conclude that "Social skills training has emerged as a frontline treatment approach for aggressive children and adolescents." However, only 12 of the 56 evaluations reviewed by Nangle et al. involved adolescents, only five of these involved social skills training, only three involved adolescents with clearly defined conduct problems and only two (Elder, Edelstein & Narick, 1979; Spence & Marzillier, 1981) measured the effects of social skills training on future antisocial behaviour. The Elder et al. study is a study of just four adolescent offenders.

Although the development of social skills training interventions for teenagers with conduct problems remains popular and many dozens of evaluations of this kind of intervention have been undertaken, the great majority of evaluations fail to meet even the most basic standards required for an evaluation study. A Campbell review of the effects of CBT on offenders found that only 58 of the more than 200 studies involving juvenile offenders which were examined met the standards required for a Campbell review (Lipsey, Landenberger & Wilson, 2007) while a Cochrane review of the effects of CBT interventions for youth placed in juvenile residential care found that only 12 of the nearly 100 studies examined met the standards required for inclusion in a Cochrane review (Armeliuss & Andreassen, 2009). In these reviews, studies had to be rejected because they did not make use of an appropriate outcome measure, or failed to include a control group, or failed to assign cases at random to the control group. Even those studies which met the criteria for

inclusion often failed to distinguish between teenagers with adolescent onset conduct problems and those with early onset conduct problems (who are much more resistant to treatment) while those that tracked behaviours such as offending (which occur at a low rate) often failed to do so for adequate periods of time during pre-treatment and post-treatment phases.

3.1 Aggression Replacement Training

There appears to be only one social skills training programme which has collected data on offending and which has demonstrated a reproducible reduction in offending as a result of programme completion and this is Goldstein's Aggression Replacement Training.

Description. Aggression Replacement Training is 30 hour group training programme designed for young adolescent offenders. ART students meet in small groups with a trained tutor three times a week for 10 weeks. ART can be run as part of a school programme, residential programme or community-based programme. A description of the curriculum and teaching procedures will be found in Glick and Gibbs (2010). The ART curriculum consists of three components: training and practice in social skills, (b) anger control training and (c) moral reasoning training using moral dilemmas. The social skills curriculum is called *Skillstreaming* and consists of 50 skills such as how to make a complaint, recognising other people's feelings, how to deal with other people's anger, coping with group pressure, how to express affection, and so on. The anger control programme teaches techniques for managing situations involving the coercive behaviours of others. These include identifying triggers, deep breathing, backward counting, pleasant imagery, self-coaching, thinking ahead, relaxation techniques, and so on. Skills are taught using live and DVD demonstrations and instruction. Skills are practised using role plays.

Resources. The main resource for ART is the ART manual which is now in its 3rd edition (Glick & Gibbs, 2010). This manual includes a DVD. The social skills training programme, *Skillstreaming the Adolescent* may also be purchased separately (McGinnis, 2011). The *Skillstreaming* programme includes a student manual, a set of 400 cue cards, and a set of posters.

Effectiveness. A summary of the ART evaluation research has been provided by Goldstein (2004) who describes the results of 12 evaluations of which six have been published. Of these six, three are RCTS which include data on changes in rates of offending 3 to 12 months post intervention. The main evaluation study (Goldstein, Glick, Irwin, Pask-McCartney & Rubama, 1989), involved 84 youths who had recently been released from residential facilities for delinquent youths and who were assigned to one of three treatments: (a) ART for the youth only, (b) ART for both the youth and his parents, and (c) a control group. At a 3-month follow up, 85 % of the youth in the youth and parent group had avoided re-arrest, 70% of the youth only group had avoided re-arrest, and 57% of the control group had avoided re-arrest. These results have been replicated by the development team using the members of different teenage gangs for the experimental and the control group (Goldstein, Glick, Carthan, & Blancero, 1994). In the third evaluation, undertaken by an independent

team, 85% of 18 of ART graduates in a juvenile justice residential programme had avoided re-offending 12 months post-intervention while 60% of 36 control youth (in the same programme) had avoided re-offending during the same period (Leeman, Gibbs and Fuller, 1993). In the Campbell review, Lipsey et al. (2007) give the effect size for ART on the outcomes from six evaluations as $d = 0.16$.

Conclusions. With adolescent offenders, ART has been shown to produce a small reduction in offending. Given the weak effect that ART has on the avoidance of risky behaviour in teenagers with conduct problems it follows that attempts to introduce this programme into the New Zealand setting should meet three requirements. First, steps should be taken to ensure that ART is not introduced as a stand-alone intervention but only as part of a multimodal treatment programme. Second every effort should be made to ensure that programme effects are evaluated using randomly assigned control groups until such time as its superiority (relative to current provisions) has been established. Thirdly the programme evaluators will need to ensure that the outcomes for teenagers with early onset conduct problems and the outcomes for those with adolescent onset conduct problems are always analysed and presented separately. It is also important that these evaluation attempts use measures of meaningful and longer term change in the lives of the participants (Gresham, Sugai & Horner, 2001; Spence, 2003).

Like most social skills training for adolescents with conduct problems, ART fails to recognise that a teenager's social skills are acquired as a result of hundreds of thousands of social learning trials in hundreds of real life settings over a ten year period and that a failure to acquire social competence during the first 10 years of life cannot be remedied by 10 hours of discussion and role play. The inclusion of social and cognitive skills training in treatment programmes for antisocial teenagers assumes that once the teenager realises why they are getting into trouble they will change their behaviour. However, clinical experience suggests that "some adolescents with severe antisocial behavior problems have good insight into the causes and triggers of their problem behavior, but they are not skilled enough to change it. They may also have goals that are different from those of the adults around them" (Sprengelmeyer & Chamberlain 2001, p. 292) which means that there is no motivation to change. "Well this, what's its name, ART, that's only crap, it doesn't function. Last time we role played. "Are you nuts?" you say to somebody. And you have to control yourself. I have tested that shit. It doesn't help" (Holmqvist, Hill & Lang, 2007).

The research to date suggests that "interventions that target change in the social context appear to be more effective, on average, than those that attempt to change individual attitudes, skills and risk behaviours" (U. S. Surgeon General, 2001, p. 13.). However, it is possible that extended social skills training such as that provided during ART may make a small contribution to multimodal attempts to halt and reverse an established pattern of antisocial development. Izzo and Ross (1990) have argued, as a result of their meta analysis of 46 studies of interventions for young offenders, that rehabilitation programmes which include a cognitive skills component may be more effective than those which do not. However, opinion remains divided with respect to the contribution which social skills training makes to effectiveness when it is included as a component of a multimodal treatment programme.

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Part 4

Multimodal Interventions for 13- to 17-Year Old Youth with Life Course Persistent Conduct Problems

The search for effective treatments for older children with persistent conduct problems has led many investigators to experiment with multimodal treatment programmes. Multimodal programmes are interventions which combine two or more of the following elements: (a) family therapy, (b) school or classroom based interventions and/or (c) interpersonal skills training for the young person with conduct problems. This section reviews three multimodal programmes which have been evaluated and which qualify as evidence-based: Multisystemic Therapy, Teaching Family Homes, and the Oregon model of Multidimensional Treatment Foster Care.

4.1 Multisystemic Therapy (MST)

The primary aim of Multisystemic Therapy is to change the various family, school and community systems which are operating to maintain the antisocial behaviour of teenagers with persistent conduct problems.

Description. MST was designed for youth aged 10 to 18. MST targets individual teenagers and hence qualifies as a Tier 2/Tier 3 (indicated) intervention. Multisystemic therapists work to improve caregiver behaviour management skills, increase positive family interactions, decrease association with deviant peers, increase association with prosocial peers, improve school performance and increase engagement in normal recreational and social activities. Interventions with the individual teenager focus on improving social skills, academic skills and self-management skills. Interventions with the family focus on improving communication, supervision, contingency management and discipline skills. A major goal is to empower parents with the skills and resources needed in order to address the difficulties that arise in raising teenagers and to empower them to cope with family, peer, school, and neighbourhood problems.

Interventions, which typically last about 4 months, are delivered by trained master's level therapists who receive on-site supervision from a doctoral level clinician on a weekly basis. Therapists carry a caseload of four to six families and are required to track and document the progress of each family on a weekly basis. Treatment teams collaborate to provide 24 hour a day, 7 day a week coverage.

Resources. MST resources are available from the MST website at www.mstservices.com. These include an organisational manual, supervisory manual, therapist and supervisory hiring toolkit, programme start-up kit, and information about training providers and training programmes. A list of New Zealand MST providers will be found at www.mstnz.co.nz.

Effectiveness. Controlled evaluations of MST have been reviewed by Curtis, Ronan and Borduin (2004). Inclusion of MST in this review rests on the results of four evaluations undertaken by the developers. These RCTS will be referred to as the Simpsonville study which involved 84 juvenile offenders who were randomly assigned either to MST or to conventional services such as probation (Henggeler, Melton & Smith, 1992; Henggeler, Melton, Smith, Schoenwald & Hanley, 1993), the Columbia study which involved 176 juvenile offenders randomly assigned either to MST or to individual counselling (Borduin et al., 1995; Schaeffer & Borduin, 2005), the community mental health centre study in which 155 juvenile offenders in South Carolina were randomly assigned either to MST or to current services (probation) (Henggeler, Melton, Brondino, Scherer, & Hanley, 1997), and the Charleston study in which 118 juvenile offenders with drug abuse diagnoses were randomly assigned to either MST or current services (Henggeler, Clingempeel, Brondino, & Pickrell, 2002; Henggeler, Pickrell, & Brondino, 1999; Henggeler, Pickrell, Brondino, & Crouch, 1996).

In the Simpsonville study, the juvenile offenders assigned to MST were found, 1 year post referral, to have been arrested less often than the youth assigned to conventional services (means = 0.87 and 1.52) and to have spent fewer weeks incarcerated (means = 5.8 and 16.2 weeks) (Henggeler et al., 1992). Follow-up 2.4 years later indicated that only half as many MST youth (20%) as conventional services youth (39%) had been rearrested (Henggeler et al., 1993). Littell, Campbell, Green and Toews (2009) give the effect size for future arrest as $-.45$ and for future incarceration as $-.62$.

In the Columbia study, the youths assigned to MST were found, 3 to 5 years post probation, to have been arrested less often than the youths assigned to counselling (26% vs 71% arrested at least once). In addition, the recidivists in the MST group had been arrested significantly less often, had been arrested for significantly less serious crimes, and were less likely to have been arrested for violent crimes (Borduin et al., 1995). In a long term follow-up 10 to 16 years post-treatment, adults in the MST group were found to have a significantly lower recidivism rate (50% vs 81%), to have engaged in fewer offences (1.82 vs 3.96 on average), to have committed fewer violent offences and fewer drug related offences, and to have spent less than half as many days in prison. A follow-up 22 years post-treatment confirmed the significantly lower recidivism rates for the MST group across not only violent and felony crimes but also civil proceedings such as divorce and paternity suits (Sawyer & Borduin, 2011). This is the longest follow-up of any of the interventions reviewed in this Appendix.

The mental health centre study was an early attempt to trial MST in the normal community mental health environment with existing therapists who had received 6 days of in-service training in MST. In this study, the youth assigned to MST (followed up 1.7 years post-treatment) had been arrested less often but not significantly less often (with arrest means of 0.9 vs 1.2) and had spent fewer weeks incarcerated (4.7 vs 10 weeks per year on average) (Henggeler et al., 1997). Effects were related to measures of treatment fidelity. "Parent and adolescent ratings of treatment adherence predicted low rates of re-arrest and therapist rating of treatment adherence and treatment engagement predicted . . . low probability of incarceration" (Henggeler et al., 1997, p. 829).

In the Charleston study, a full course of treatment lasting, on average, 130 days, was completed by 98% of MST families (Henggeler et al., 1996). Measures collected 6 months post-treatment showed no significant difference between the groups with respect to measures of drug use or frequency of arrest but the MST youths had spent half as much time incarcerated as the usual services youths (medians = 4.3 vs 9.4 weeks). In a long term follow-up 4 years post treatment, MST youth were found to be accumulating significantly fewer convictions for violent offences (0.15 vs 0.57 per year) but not for property offences. Urine screens revealed higher rates of marijuana abstinence for MST youth than for controls (55% vs 28%) (Henggeler et al., 2002).

All of the above RCTS were undertaken by the development team. To these must be added the results of an independent evaluation by Timmons-Mitchell, Bender, Kishna and Mitchell (2006). The Timmons-Mitchell study is an RCT involving Ohio youth with family court records, 48 of whom were assigned to MST and 45 of whom were assigned to usual services. At an 18 month follow-up, the recidivism rate for the MST group (67%) was significantly lower than that for the usual treatment group (87%) (Timmons-Mitchell et al., 2006). MST has been trialled in New Zealand (Curtis, Ronan, Heiblum & Crellin, 2009) where post MST reductions in the frequency of offending and out of home placements were significant and similar in size to those observed in the US RCTS. The main weakness of the NZ evaluation is that it did not include a control group.

Nil-effect results have also been reported. Results from an RCT of a Swedish implementation found few differences between the improvements produced by MST and those produce by Child Welfare Services (Sundell, Hansson, Löfholm, Olsson, Gustle & Kadesjö, 2008). The MST cases tended to cost more than the CWS cases. A large unpublished Ontario evaluation by Leschied and Cunningham also found few positive effects for MST. This led Littell, Campbell, Green and Toews (2009) to conclude that MST has no greater effect than usual services on reductions in post-treatment incarceration, mean length of incarceration or reduction in convictions. Whether the outcomes of the Ontario and Swedish implementations were due to weaknesses in the evaluation, lack of fit between the American procedures and the host culture, failure to achieve adequate levels of treatment fidelity, or superior services for delinquent youth in the “usual services” conditions cannot be determined in these evaluations.

Aos, Phipps, Barnoski and Lieb (2001) have calculated that MST returns \$2.64 in benefits for each dollar spent on treatment.

Conclusion. MST gets consistently good reviews as a treatment for adolescent offenders, it is being widely disseminated, and training is available in New Zealand. However, MST requires highly trained therapists and, because of its complexity, requires a high level and standard of supervision. Although relatively expensive to implement, it nevertheless gives a better return on social services funding than current services for antisocial adolescents. Given the implementation difficulties experienced outside of the US, implementation in New Zealand will need to be monitored, fidelity of implementation will need to be observed and recorded, and outcomes evaluated using well designed evaluations with adequate control groups.

4.2 Teaching Family Homes

Teaching Family Homes are small scale residential programmes. The Teaching Family model was designed and piloted by behaviour analysts in the early 1970s. Originally referred to as Achievement Place homes, the most widely disseminated version of the original model will be found in the Girls and Boys Town's Family Home programme in the USA.

Description. Teaching Family Homes take youth aged 12 to 17 who have been referred by the youth justice system for residential placement. These are Tier 2 /Tier 3 (indicated) placements. Each home takes 6 to 8 antisocial teenagers at a time. Teaching Family Homes are staffed by a married couple who have completed a year long training programme and who have met certification requirements. Continued employment as teaching parents depends upon an annual evaluation and re-certification process and quality control is maintained by a National Teaching-Family Association.

The TFH programme includes a number of elements. A positive relationship between the teaching parents and each of the youths in the home is considered to be an essential element of treatment (Braukmann & Wolf, 1987). The development of such a relationship is facilitated by ensuring that the teaching parents provide a high level of reinforcement (relative to corrections and penalties) throughout the youth's stay in the home. Teaching Family homes have a curriculum which includes social skills, self-help skills, problem solving skills, learning to maintain emotional control for extended periods of time, learning to accept feedback, and so on. This curriculum is individualised for each teenager. New skills are taught within the context of a family environment in which the teenager has responsibilities such as keeping his or her room tidy, helping to prepare meals, washing clothes, and cleaning up after meals. Youths who are not motivated by social consequences are placed on a token economy in which all privileges (snacks, going out, extra TV, pocket money, money for clothing, time with one's family, etc.) have to be earned. As self-control and social skills improve, the teenager advances to a system where natural consequences replace the points system. Teaching Family youth attend the local school. Teaching parents maintain a close liaison with the school, assisting with the development of educational plans, supervising homework, receiving the daily report card, giving points for achievements at school, and keeping the school informed of behaviour changes which are being practised both at home and at school.

Resources. Various manuals describe the operational requirements of a TFH and the procedures to be followed while the children are in residence (e.g. Coughlin and Shanahan, 1988; Davis & Daly, 2003; Dowd & Tierney, 1992). There is also a manual for classroom teachers (Connolly, Dowd, Criste, Nelson, & Tobias, 1995).

Effectiveness. The TFH programme has been more carefully evaluated than any other residential treatment programme for antisocial teenagers. The management procedures, token economy procedures, monitoring procedures and teaching procedures used in Teaching Family Homes have been evaluated in numerous within-subject experiments (e.g. Bailey, Wolf & Phillips, 1970; Kifer, Lewis, Green & Phillips, 1974; Minkin et al., 1976;

Phillips, 1968; Phillips, Phillips, Fixsen & Wolf, 1971). Independent investigators have evaluated the effectiveness of the TF teaching and management procedures (e.g. Liberman, Ferris, Salgado & Salgado, 1975) and have undertaken research into programme elements such as the importance of high rates of positive interactions (Friman, Jones, Smith, Daly & Larzelere, 1997). The programme developers have also undertaken research into the importance of a positive interpersonal relationship between teaching parents and the teenagers in their care (e.g. Solnick, Braukmann, Bedlington, Kirigin & Wolf, 1981). These studies found that the antisocial youth who were living in Teaching Family Homes where they had developed a positive relationship with their teaching parents self-reported the lowest levels of delinquent activities. Behaviours identified as enhancing interpersonal relationships included: "explanations and praise; individual, regular, and enjoyable time with each youth; consistent, repeated expressions of interest in, concern for, and appreciation of each youth; humour, encouragement, and enthusiasm; and offering and providing help to the youths in areas important to them" (Braukmann & Wolf, 1987, p. 145).

In addition to multiple studies of the effects of individual programme elements, at least six evaluations of the long term effects of Teaching Family home placements have been undertaken. One of the earliest of these (Kirigin, Braukmann, Atwater & Wolf, 1982), examined outcomes at a 1-year follow up for a group of 140 TF youths (from 12 TF homes) and a control group of 52 youths from traditional residential programmes. The data suggested that the TF youths made greater gains both socially and academically while in the programme but no significant differences were found on any of the police and court measures one year later. Subsequent evaluations (Jones & Timbers, 1982; Jones, Weinrott & Howard, 1981; Braukmann, Wolf, & Kirigin Ramp, 1985) have come to much the same conclusion both with respect to officially recorded and self-reported post-treatment offences. The long term outcomes seem to be shaped by the environment into which the teenager returns.

A long term follow-up by Thompson, Smith, Osgood, Dowd, Friman & Daly (1996) of boys from Boys Town homes found significantly superior performance for Boys Town graduates on a range of educational measures (grade point average, secondary school completion, and attitudes to college) for four years post-treatment compared to youths in community programmes. A follow up study of 440 youth who were discharged from the Girls and Boys Town Family Home program during the 2-year period 1999-2000 found that, across 16 outcomes, most residents had improved from intake to discharge and were functioning at levels similar to national norms on educational and employment measures at a 3 month follow up (Lazerele, Daly, Davis, Chmelka and Handwerk, 2004). An overview of the results of a number of Boy's Home follow-up studies has been provided by Friman (2000).

Included in the evaluation literature are a number of analyses of the factors affecting the long term viability of a teaching family home (e.g. Bernfield, 2001; Bernfield, Blasé & Fixsen, 1990; Fixsen, Blasé, Timbers & Wolf, 2001). Based on more than 792 replications of the Teaching Family Model, these analyses identify many of the regulatory variables, community variables, staff selection and training variables, supervision and monitoring variables, administrative and management variables which operate to determine whether or not a new Teaching Family Home programme will survive and flourish.

Conclusion. The Teaching Family Home programme is one of the few exceptions to the general observation that residential programmes tend to result in rather poor outcomes for youth with early onset conduct problems. Research suggests that TFH results depend upon the level of training, the level of supervision and support and the pay levels of the teaching parents. Cost cutting with respect to these elements is likely to result in reduced effectiveness. In addition, long term outcomes for TFH graduates appear to depend upon the environment to which the youth returns after leaving the programme. It follows that attempts to introduce this programme into the New Zealand setting will need to be accompanied by well designed evaluations which track both implementation fidelity and youth outcomes for adequate periods of time.

4.3 Multidimensional Treatment Foster Care Oregon Type (MTFC-O)

The Oregon version of Multidimensional Treatment Foster care is an advanced model of treatment foster care for children and youth with severe conduct problems. MTFC-O employs specially trained and supervised foster parents who are provided with wrap-around support.

Description. The Oregon model of Multidimensional Treatment Foster Care is based on the assumption that retraining antisocial youth is more likely to be accomplished by foster parents who have not become enmeshed in a long history of aversive interactions and confrontations. MTFC-O is one of the few empirically supported programmes available for children and youth who have been removed from their parents under juvenile justice or child protection statutes. This makes it a Tier 3 (Indicated) intervention.

Foster parents are recruited, trained, and supported to become part of the treatment team. They provide close supervision and implement a structured, individualized program for each teenager. Foster parents receive 12 -14 hours of pre-service training, participate in group support and assistance meetings weekly, and have access to program staff back-up and support 24 hours a day, 7 days a week. Foster parents are contacted daily (Monday through Friday) by telephone to provide the Parent Daily Report (PDR) of social and antisocial behaviour during the previous 24 hours. This is used to monitor and plan programme changes. Treatment foster parents are paid a monthly salary and are intensively supervised by a full time clinical supervisor who has a caseload of not more than 10 children. Individual placements last for 6 to 9 months.

A positive and predictable environment is established for children in the MTFC-O home via a structured behaviour management system and the birth family or other aftercare resource receives family therapy and training in the use of a modified version of the behaviour management system used in the MTFC-O home. Family therapy is provided to prepare parents for their teenager's return home and to reduce conflict and increase positive relationships in the family. Family sessions and home visits during the youth's placement provide opportunities for the parents to practise their new skills and to receive feedback.

For children and youth who have been referred as a result of delinquency, a high level of supervision is provided. Management of the teenager throughout the day is achieved through the use of a 3-level points system. Privileges and level of supervision are based on the teenager's level of compliance with programme rules, adjustment to school, and general progress. Contingent on progress, levels of supervision and discipline are gradually relaxed during the course of the placement. Heavy emphasis is placed on the teaching of interpersonal skills and on participation in mainstream social activities such as sports, hobbies, and other forms of recreation.

Resources. Training and accreditation services are available for each of the MTFC-O roles: foster parent, programme supervisor, MTFC-O therapist, family therapist, skills trainer, and PDR caller. Details of these services are provided on the MTFC website at www.mtfc.com/

Effectiveness. The inclusion of MTFC-O in this review of evidence-based treatments rests on the results of three RCTs with teenagers. The first of these, the Transitions Study, involved 32 children and youth aged 9 to 17 years with severe mental health problems who were being discharged from the Oregon state psychiatric hospital. Participants were randomly assigned to either MTFC or to community services as usual and followed up 7 months post-discharge. At follow-up, MTFC-O youth were more likely to have been placed out of hospital (and more rapidly) than control youth, they were more likely to be living in community rather than institutional settings, and they were reported to be exhibiting fewer antisocial behaviours than control youth (Chamberlain & Reid, 1991).

In the second study, the Boys Study, 79 boys aged 12 to 17 years who were being placed by the Juvenile Court in out of home placements as a result of serious antisocial behaviour were randomly assigned to either MTFC-O or group residential care and followed up at 6, 12, 18 and 24 months. At the 1 year follow-up, significantly greater numbers of MTFC youth were found to have completed their programmes (73% vs 36%) and fewer had run away from their placements (31% vs 58%). MTFC youth self reported many fewer delinquent and criminal offences, had accumulated fewer arrests, and had spent fewer days in detention (Chamberlain & Reid, 1998; Chamberlain & Moore 1998; Eddy, Whaley & Chamberlain, 2004).

In the third evaluation, the Girls Study, 82 adolescent girls who received court directed out-of-home care due to serious delinquent acts were randomly assigned to either MTFC or to Group care. At the 1 year follow-up, the MTFC girls had spent less time in detention, were engaging in fewer parent-reported delinquent behaviours, were spending less time with delinquent peers, were spending more time on homework and had better school attendance records than the girls in the control group. At the 2-year follow-up fewer MTFC girls had become pregnant (27% vs 47%), the MTFC girls had spent less time incarcerated and had accumulated fewer arrests (Leve & Chamberlain, 2007; Leve, Chamberlain & Reid, 2005; Chamberlain, Leve & DeGarmo, 2007).

In addition to the long term evaluation studies, the programme developers have reported on procedures for monitoring programme implementation (e.g. Chamberlain, Brown & Saldana, 2011), factors predicting placement disruption (e.g. Chamberlain et al., 2006), factors which mediate successful outcomes (e.g. Smith, 2004) and so on. AOs, Phipps,

Barnoski and Lieb (2001) report that MTFC-O is one of the most cost effective treatments available for adolescent offenders - returning \$43.70 in savings for each dollar spent. According to the MTFC website, MTFC-O for teenagers has been (or is being) installed in sites in Canada, Denmark, England, Ireland, Scotland, the Netherlands, New Zealand, Norway, Sweden, and a dozen US states.

Conclusion. The Oregon version of MTFC is widely regarded as one of the most effective treatments so far developed for teenagers with life course persistent conduct problems. However, the system is complex and its installation requires considerable training and attitude change on the part of all of the personnel involved at all levels of its implementation. Implementation monitoring indicates that implementation often takes longer than planned and that implementation failure is not uncommon (Chamberlain, Brown & Saldana, 2011). It follows that introduction of the programme into New Zealand will require careful implementation monitoring, long term effectiveness evaluation against adequate control groups, and careful cost benefit analyses.

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